CHAPTER ONE  - INTRODUCTION

1.0 Introduction
This chapter provides the background information to this study which was a clinical audit of Physiotherapy low back pain patient records of the Parirenyatwa Physiotherapy Department. The background information below highlights the immediate reason for carrying out this study as well as the value of carrying out a clinical audit. The statement of the problem, research question, objectives of the study and justification of carrying out the study are also described in this chapter. The chapter ends with the definition of terms used in the study.

1.1 Background
Musculoskeletal disorders are prevalent and a major burden for individuals and society, Larsson (2010). Musculoskeletal conditions constitute a branch of physiotherapy that deals with conditions of bone and muscle for example joint disease and muscle pain. According to unpublished records (2012) retrieved from the Parirenyatwa physiotherapy department, musculoskeletal conditions contributed 62% of all the cases that presented to Parirenyatwa Hospital’s Physiotherapy outpatient department during the year 2010-11. From the above unpublished Parirenyatwa physiotherapy records (2012) low back pain is one of the musculoskeletal conditions which contributed 13% of all the musculoskeletal conditions during the year 2010-11. From the unpublished Parirenyatwa physiotherapy records (2012) low back pain is one of the musculoskeletal conditions alluded to above which contributed 13% of all the musculoskeletal conditions during the year 2010-11. According to Baker and Burke (2008) back pain is a symptom rather than a disease for which there is no one single aetiology or panacea. Hellman, (1998) concluded or stated that low back pain is a result of a variety of diseases and conditions.

During the author’s clinical attachment at Parirenyatwa, he noticed that a number of assessment forms for low back pain patients had some aspects missing. In addition he noted that there was no standard physiotherapy assessment form for Low Back Pain patients. This
prompted him to carry out a patient record audit to find out the reasons why some aspects were missing.

According to the Chartered Society of Physiotherapy, CSP (2000) a clinical audit is a cyclical process, involving the identification of a topic, setting standards, comparing practice with the standards, implementing changes and monitoring the effect of those changes. The CSP developed standard tools for physiotherapy practice to improve quality assurance and accreditation of therapy service that a physiotherapist offers and this has now been set as a benchmark for clinical audit. According to May (2003) and Hammond et al (2005) clinical audit is an essential component in raising the standards of therapy-based clinical care and it can also measure the effectiveness of physiotherapy intervention for musculoskeletal conditions, In support May, Hammond and others, Sparkes (2005); Benjamin (2008) added that auditing of patient records is one of the ways that can be used to maintain and improve service delivery.

1.2 Statement of the problem

Although assessment forms are available at Parirenyatwa, physiotherapists prefer a “helicopter” type of assessment. A “helicopter” assessment is one which is not thorough, since not all aspects are assessed. It is not clear the reasons for this practice but it is this author’s assertion that this leads to inadequate assessment.

1.3 Research Questions

1. Are physiotherapists adequately assessing low back pain patients at Parirenyatwa hospital?

2. What are the factors at play?

1.4 Objectives of the study

1.4.1 Broad Objectives

1. To audit assessment forms used for patients presenting with low back pain conditions
2. To find out from the Physiotherapists factors contributing to the way assessments for low back pain were carried out. The author noticed other factors which in his view may have contributed to inadequate assessment of musculoskeletal conditions and these were classified into health system factors and the health worker factors. (See fig 1.1 next page) and were also investigated to answer the objectives of the study.

### 1.4.2 Specific Objectives

1. To determine the information obtained during an assessment of a patient presenting with a low back condition at Parirenyatwa Hospital’s physiotherapy department during 2010-11.

2. To determine the information left out during an assessment of a patient presenting with a low back condition at Parirenyatwa Hospital’s physiotherapy department during 2010-11.

3. To determine the relevance of the current assessment form used by physiotherapist at Parirenyatwa Hospital’s physiotherapy department during 2010-11.

4. To determine factors contributing to the way assessments for low back pain were carried out.

### 1.5 Justification of the study

As stated earlier, musculoskeletal conditions are the most prevalent conditions presenting at Parirenyatwa hospital’s physiotherapy department and constitute the majority of the work done by the physiotherapist. Therefore most people’s encounter with physiotherapist is in the context of musculoskeletal conditions problems. The quality of care by the physiotherapist is therefore, important especially considering that physiotherapy treatment is expensive to the average Zimbabwean. To the author’s knowledge no audit has been done to determine if
patients receive value for their money when the majority of therapists only use the “helicopter” method of assessing the patient’s condition even if this may be due to various reasons.

**Conceptual framework: Factors leading to inadequate assessment of low back pain conditions**

![Conceptual framework diagram](image)

**Fig 1.1 Conceptual framework: Researcher fabricated**

**1.6 Definition of terms**

i. “Helicopter” assessment:- an assessment which is not thorough, it sweeps through but not all aspects are assessed. This is an author’s coined term.

ii. Health System Factors:- are aspects which the employer has control over in ensuring delivery of service to the patient and in this study this refers to availability of clinical supervision, recruiting enough staff so that there is no staff shortage and opportunity for continuous professional development programmes.

iii. Health worker factors:- are aspects that an individual health worker has control over in delivering health care services to a patient and in this study this refers to clinical judgement, work experience, attitudes and
IV. Staff Shortage: is when the number of present physiotherapist is less than what the institution requires.

V. Clinical competence: is the confidence that a physiotherapist has when assessing and treating low back pain.
CHAPTER TWO - LITERATURE REVIEW

2.0 Introduction

This chapter presents the review of current literature on issues pertinent to the assessment of low back pain. Relevant literature was obtained from a wide variety of journals which include: Arthritis and Rheumatism, Australian Health Review, Australian Journal of Rural Health, BMC Health Services Research, British Medical Journal, Clinical Journal for Pain, Clinical Rehabilitation, Frontline, Indian Journal for Occupational and Environment Medicine, International Musculoskeletal Medicine, Journal of Advanced Nursing, Journal of Evaluation In Clinical Practice, Journal of Primary Health Care, Learning in Health and Social Care, Pain, Physical Therapy, Physiotherapy, Physiotherapy Canada, Physiotherapy Research International, Physiotherapy Theory and Practice, Singapore Medical Journal, Spine, The Spine, The Internet Journal of Allied Health Sciences and Practice using Google scholar and HINARI as the electronic databases. The description of clinical audit in physiotherapy and an assessment of low back pain are given. Reviews of studies on factors affecting a good assessment are presented. Finally, a review of methodology is highlighted. The discussion was guided under topics presented as follows:

2.1 What is clinical audit in physiotherapy?

2.2 Review of Low Back Pain Assessment audit

2.3 Low Back Pain and Age

2.4 Assessment of low back pain

2.5 Factors affecting a good assessment

2.5.1 Health system factors

2.5.1.1 Continuous professional development.

2.5.1.2 Clinical supervision
2.5.1.3 Staff shortage

2.5.2 Health worker factors

2.5.2.1 Clinical judgement

2.5.2.2 Working experience

2.5.2.3 Attitudes

2.5.2.4 Clinical competence

2.6 Review of methodology

2.6.1 Audit tool

2.6.2 Focus group discussion

2.1 What is clinical audit in physiotherapy?

According to the CSP (2000) a clinical audit is a “cyclical process, involving the identification of a topic, setting standards, comparing practice with the standards, implementing changes and monitoring the effect of those changes”. The CSP identified different types of clinical audits and these include: patient record audit, peer review, patient feedback audit and service standards audit. In support of CSP, Benjamin (2008) defined clinical audit as “cyclical or spiral systematic process with an ultimate aim of improving care”. Sparkes (2005) defined clinical audit as “the process that analyses patient care and outcomes through a systematic review of care monitored against set standards”.

Gumery et al (2000) noted that quality of physiotherapy documentation improved through clinical audit, which was noted after a re-audit of patient records of patients with Cystic Fibrosis. In an audit of different conditions Sumner et al (2000) echoed the same sentiment as Gumery et al (2000) that clinical audit does improve. In addition to what Gumery and others noted, May (2003) highlighted that clinical audit is a valuable tool in physiotherapy and for
example it can demonstrate how effective an intervention is for musculoskeletal problems by making comparison of treatment and outcome. In support, Irwin et al (2005) in an audit study of stroke noted that clinical audit promotes improvements in clinical care and ensures that they are sustained over time, which was noted after a reaudit. In an audit study of low back pain, Sparkes (2005) echoed the sentiment that “clinical audit is useful in monitoring areas of good practice and in identifying practice in need of development”.

Audit as a tool has also its limitations which are incomplete data collection and missing records. May (2003) in an audit noted incomplete data collection as a limitation of audit. In addition Irwin (2005) highlighted that the other limitation of audit is that it cannot account for missing records.

Therefore it appears that there is a general agreement among above researchers about the definitions, the importance of clinical audit in physiotherapy overwhelms its limitations regardless of condition being audited.

2.2 Review of Low Back Pain Assessment Audit

In an audit by Turner et al (1999) the most recorded information was initial assessment (100%) and treatment plan (82.3%) whilst there was limited recording of problem list (28.4%), goals list (7.2%) and discharge summary (30.8%). However, Sumner et al (2000) noted that goals had a documentation of (33%), whilst patient’s expectations and outcome measures were (39%) and (44%) respectively. In a low back pain audit study by Sparkes (2005) the most recorded information were bed rest not advised (100%), evidence of diagnostic triage (96%), advise to keep active (64%), and joint mobilization Grades I-IV (59%) whilst no record was documented to consider manipulation Grade V (0%). Even though Turner et al (1999) and Sumner et al (2000) used the same CSP proforma the discrepancy is due to the fact that the former used the tool on low back pain patients only whilst the later used the tool on different conditions. Sparkes (2005) used a different audit tool which resulted in different findings from other authors.
2.3 Low Back Pain and Age

Low back pain is more prevalent in the middle age group (31-40 years) but severe low back is linked to aging (51-60 years), Birabi et al (2012). Balague et al (2012) noted a strong association between low back pain and degeneration of lumbar discs.

2.4 Assessment of low back pain.

Assessment of low back pain is the process of gathering detail about the patient’s ailment so as to give effective treatment, Gaskell (2008).

Al-Eisa (2010) in an audit study on low back pain patients’ adherence to treatment noted the following to be important when assessing and managing low back pain patient:- history of the problem, cause of pain, nature of pain, initial pain intensity and patient’s perception. Gregg et al (2011) highlighted that physiotherapy assessment of low back pain includes a detailed symptomatic history, a focused spinal physical examination and additional screening to eliminate systemic disease.


For clarity the author will present the different aspects of the assessment as found in the literature using the following subheadings:

2.4.1 Demographic information of low back pain

2.4.2 Subjective assessment of low back pain

2.4.3 Objective assessment of low back pain
2.4.1 Demographic information of low back pain

Gumery et al (2000); Boissonnault (2005); Southorn (2010) included demographic information as part of patient assessment. According to Gumery et al (2000) demographic information comprises of patient identification number, name, address, telephone number, date of birth, date of admission, ward, diagnosis, reason for referral and name of consultant and physiotherapist attending to the patient. In contrast, Boissonnault (2005) highlighted that the patient demographic information include age, sex, race, marital status and level of education. Southorn (2010) support Gumery et al (2000) that the demographic information comprises of standard name, address, family physician and date of birth. From the different authors above demographic information is the first section of patient assessment and it is made of the patient’s personal details.

Gumery et al (2000)’s demographic information is more detailed as compared to Boissonnault (2005) and Southorn (2010). Gumery et al (2000) and Boissonnault (2005) separates demographic data into a different section from subjective assessment but in contrast Gaskell (2008) and Southorn (2010) include demographic data and subjective assessment as one section. The difference in having detailed demographic information may be due to other authors including demographic information under subjective assessment.

2.4.2 Subjective assessment of low back pain

The following authors included subjective assessment as part of patient assessment; Gumery et al (2000); Billis et al (2007); Gaskell (2008); Blackburn et al (2009) and Southorn (2010). In 2010, Southorn had defined subjective assessment as the gathering of information by interviewing. According to Gumery et al (2000), the subjective assessment of a Cystic Fibrosis yields information about the subject’s past medical history, history of presenting complaint, family and social history, drug history and chest X-ray as given by the subject. According to Billis et al (2007) subjective assessment of low back pain comprises of questions on present complaints, history of symptoms, function, medical history and psychosocial issues. However,
Gaskell (2008) noted that in musculoskeletal conditions, subjective assessment aims to gather all relevant information about site, nature, behaviour and onset of symptoms, past treatments, review of patient’s general health, along with any investigations, medications and social history. Blackburn et al (2009) noted the following factors to be under subjective assessment of low back pain: history of presenting condition, body chart, aggravating factors, easing factors, 24 hour behaviour, specific screening questions, past treatment, past investigations. Subjective assessment comprises of questions on the presenting condition, history of presenting condition, symptoms, special questions, past medical and surgical history, drug and social history, Southorn (2010).

All the above mentioned authors named this section of assessment subjective assessment except, Billis et al (2007) who named it “history”. The literature is not clear why it was named “history”. Although Billis et al (2007) and Blackburn et al (2009) looked at subjective assessment of low back pain while the former concentrated on functional and psychosocial issues and the later looked at the 24 hour behaviour. From authors above it has been noted that the following is part of subjective assessment: - history of presenting complain, medical and surgical history, family and social history, drug history, investigations and special questions. The special questions were quering if the current condition is family related or any link with other conditions like diabetes and arthritis.

In an audit study by Gumery et al (2000), they noted that in their first audit five out of the seven categories under subjective assessment scored above 85% completion. This was the only reference about subjective audit that the author found.

2.4.3 Objective assessment of low back pain
Billis et al (2007); Gaskell (2008); Blackburn et al (2009); and Southorn (2010) included objective assessment as part of patient assessment. Southorn (2010), defines “Objective assessment as what is seen and/or measured by the clinician”, and this yields objective information.
Billis et al (2007) states that “Physical examination of low back pain consists of observation, active and passive movements, neurological examination, muscular examination, palpation and special tests and cultural section.” The cultural section includes physiotherapist’s assessment of attitude and patient’s attitude. In support, Blackburn et al (2009) highlighted that the following factors should be assessed under physical examination of the low back pain: active movements of the spine, special tests (for example straight leg raise, slump test and prone knee bend), spine palpation, muscle strength testing, neurological examination (dermatome, myotome and reflexes).

However, Gaskell (2008) noted that objective assessment of musculoskeletal conditions covers the following areas: general observation, local observation, posture, assessment of movement, muscle strength and neurological testing which looks at dermatomes, myotomes, reflexes and mechanical tension tests. Southorn (2010) included the following under objective assessment of musculoskeletal conditions consists of general observation of muscle bulk, posture, gait and range of movement.

In contrast to the other authors, Billis et al (2007) together with Blackburn et al (2009) named the information “physical examination” instead of “objective assessment” even though the information gathered is the same, they had a detailed objective assessment because they were only looking at the back whereas Gaskell (2008) and Southorn (2010) were looking at musculoskeletal conditions in general. However, Billis et al (2007) objective assessment had a cultural section, the reason for this section is not explained. The cultural section comprised of physiotherapist’s assessment of attitude and patient’s attitude. Although there is a general consensus between the authors in regard to what an objective assessment comprises of, low back pain patients present differently, Baker and Burke (2008), state that there is no one system of assessment which will suffice for all back patients.
2.5 Factors that affect a good assessment

The assessment of a low back pain patient by a physiotherapist maybe affected by various factors. These factors either directly or indirectly impede provision of quality service to patients. The factors that affect a good assessment have been grouped into two main areas that are the healthcare system factors and health worker factors. These two main factors will be dealt with in more detail below.

2.5.1 Health system factors

Health system factors are aspects which the employers have control over in delivering service to patient. The way service is delivered has greater effect on the day to day running of a health system and the following aspects have an effect on service delivery; clinical supervision, continuous professional development and staff shortage. These three aspects are dealt in more detail in the coming section.

2.5.1.1 Continuing professional development (CPD)

Ahuja (2011) defined continuing professional development (CPD) as a term used to describe the process to maintain, develop and enhance skills, knowledge and competence in order to improve performance at work.

Gumery at al (2000) recommended in-service training so as to maintain the quality of physiotherapy record documentation. In a study by Noll et al (2001) on decision making regarding managing low back pain, they noted that advanced training in a specific philosophy of treating the spine, positively influences how a physiotherapist assesses and manages low back pain patients. Clouder and Sellars (2004) echoed that continuous professional development enhances practice and professional development. According to Daykin and Richardson (2004), in-service training was seen as a key way of obtaining new knowledge and crafting skills for assessing and treating chronic low back pain. Continuing professional development increased the role of physiotherapist in management of arthritis, Li et al (2010). In support Willet et al (2011) found out that physiotherapists who participated in a hybrid continuous education
course on outpatient physical therapy for individuals with low back pain reported an improvement in the managed patient in their practice.

There are some challenges associated with participation in CPDs. Wilkinson et al (2007) cited funding for the training and time off as challenges encounterd by physiotherapists in their study. These authors found that continuing professional development opportunities were restricted for participants due to staff shortage and work pressure. According to Kane (2009), in a study about stress as a cause of psychosomatic illness among nurses, it was noted that the human resources managers are not initiative on ongoing training even though about 66% of the nurses were interested in training for new skills they had to fund themselves for professional development. In a study by Miles et al (2010) to find out factors associated with retention of physiotherapists, the two main factors identified were lack of professional development and minimal supervision.

2.5.1.2 Clinical Supervision

Clinical supervision is the process of directing and guiding subordinates. In this context, clinical supervision looks at supervision of qualified physiotherapists in assessing low back pain patients.

Clinical supervision is beneficial and necessary in enhancing practice and accountability, and promoting professional development, (Clouder and Sellars 2004). The most reported benefits of clinical supervision were personal and professional development, professional support advice and dedicated time for individuals, (Sellars 2004). In support to Sellars (2004), Hall and Cox, (2009) reported that clinical supervision is helpful as a way of indicating personal and professional development while others reported that it helped them link with continuing professional development and reflective practice.

However, clinical supervision has some limitations. Clinical supervision can be viewed as a threatening form of surveillance because it is formal and has been seen as a top down initiative, (Clouder and Sellars 2004). Clinical supervision has been mainly affected by time, lack of support, availability of appropriate supervisors, heavy workloads, busy schedules and staff
shortages, (Sellars 2004). Hall and Cox (2009) added that tension can rise if subordinates associate clinical supervision with line management and appraisal.

2.5.1.3 Staff shortage

According to the author, shortage of staff is when the number of present physiotherapist is less than what the institution requires. The availability of physiotherapy time dictates the potential case load that can be carried and is continuously but unconsciously calculated by practitioners, Squires and Hastings (1997). The physiotherapist to patient ratio (case load) can be calculated using the clinical care ratio. This refers to the time spent on non-patient activities compared with the time spent on patient care activities, expressed as a percentage of total time worked, (Nadine and Simmons 2011).

Patient: clinician ratio has some strengths and limitations to workload of clinicians. The strength of having a patient: clinician ratio is that they are simple and transparent whilst the main weaknesses that they are relatively inflexible and inefficient, (Buchan 2005).

Wilkinson et al (2007) said that the decline in morale and job satisfaction were attributed to demoralisation coming from staff shortage and increased work burden. High caseloads, periods of increased activity and staff shortages are some of the factors that contribute to stress to physiotherapists. (Lindsay et al, 2008). In support, Kane (2009), highlighted that staff shortage is a major cause of stress among health workers. The increased work burden results in physiotherapists leaving out important aspects of the assessment, poor assessment will result in poor problem identification and poor goals are set and this result in poor patient outcome.

2.5.2 Health worker factors

Health worker factors are aspects that an individual health worker has control over in delivering health services to a patient. The health worker factors include clinical judgement, work experience, attitude and clinical competence and these either are beneficial or detrimental to provision of quality services. According to Daykin and Richardson (2004) the work experience of a physiotherapist is one of the factors that affects how an assessment of low back pain
patients is carried out. Billis et al (2006), noted that the attitudes of health professionals were related to how they perform their assessment. How these factors affect assessment will be dealt with in more detail below.

2.5.2.1 Clinical judgements

Clinical judgement is the clinical reasoning that a physiotherapist uses to assess and treat a condition. According to Jacques (2005), assessment and treatment choices of physiotherapists treating non specific low back pain in Rwanda, was based on what they were taught during training, experience, information from journals, from workshops and peers on how to manage low back pain patients. However, Davies and Howell (2012) found out that physiotherapists use the following 4 decision-making preferences when assessing and managing low back pain conditions: - identifying the root cause, an eclectic approach, experience-based management, and evidence-based management. Davies and Howell agree that work experience is one of the clinical judgements used in assessing and managing low back pain. Work experience and attitude of physiotherapist are the clinical judgements that are going to be dealt with in detail in the next section.

2.5.2.2 Work experience

Clinical experience of physiotherapist influences the clinical reason he uses to assess and manage low back pain patient, that is clinical reasoning is built on experience, (Noll et al 2001).

In a study by Daykin and Richardson (2004) “patient mileage” was defined as clinical experience gained in assessing and treating chronic low back pain patients. They went on to highlight that the experienced physiotherapists had more time in communicating with patients as compared to less experienced and the lack of treatment success was seen as lack of experience in assessing and treating. In a study of assessment and treatment choices for non specific low back pain, (Jacques 2005), indicated that many physiotherapists make assessment decisions based on their work experience. In an audit on low back pain, Ma Man Fong (2006), highlighted that “the more clinical experience you have the more you tend to prescribe
interventions with strong and moderate evidence of effectiveness.” In support, Davies and Howell (2012) also noted that experience of the physiotherapists influenced their preferred decision-making style.

However, Resnik and Hart (2003) found no difference in the way treatment is given between experienced and inexperienced therapists.

**2.5.2.3 Attitude**

According to the Oxford dictionary (1981) attitude is defined as a way of feeling, thinking and behaving. According to this author’s view an attitude is the feeling that physiotherapists have over a patient’s condition; it can be either positive or negative.

Physiotherapists only put a positive attitude on what they see to be important in their day to day practice, (Maigeh, 2003). According to Leemrijse et al (2006) a physiotherapist’s positive attitude improves compliance towards guidelines of assessing and managing ankle sprains. Kane (2009) added that clinicians' positive attitude to their work markedly increase patient satisfaction and patient loyalty.

Bekkering et al, (2003) states that “physiotherapists’ pay too much attention to pain and not encouraging independence.” This may negatively affect assessment and treatment. The way a physiotherapist feels about pain and its management influences the outcomes of therapeutic encounters of patients with chronic low back pain, (Daykin and Richardson, 2004). Daykin and Richardson, 2004 go on to say “physiotherapists who themselves experienced spinal pain used their experience in handling patients and the assessment they give to patients”. The therapist felt the same pain as they were also patients before so they what spinal pain is. In a study of low back pain by Billis et al (2007), the authors noted that the attitudes of physiotherapists in assessing low back pain patients differ, postgraduates perform a more detailed assessment and consider patient’s psychosocial status as of great importance whilst less qualified therapists, take a non-detailed history and concentrate on the biomedical dimension assessment of the patient’s problem. The authors also noted that the method of payment affected
physiotherapists’ attitude towards assessment of patient, those who paid cash received a better assessment as compared to those on public insurances. Bishop et al (2008) highlighted that physiotherapists showed a diversity of attitudes towards self reported management of patients with low back pain.

Bishop and Foster (2010), concluded that “the attitudes and beliefs that a healthcare practitioner holds when assessing a low back pain patient can act as an obstacle or facilitator to the adoption of best practice recommendations.”

2.5.2.4 Clinical competence

Clinical competence is the confidence that a physiotherapist has when assessing and treating low back pain. Audit of assessment records brings out the level of competence of physiotherapist.

In a study of low back pain by Daykin and Richardson (2004), lack of confidence and feeling of inadequacy is said to have affected the way a physiotherapist assessed and treated low back pain patients. Leemrijse et al (2006) highlighted that a physiotherapist’s competence improves with a positive attitude. Lack of clinical competence of physiotherapist in patient assessment endangers patient safety, Limb (2008). According to Harman et al (2009), the way physiotherapist approaches assessment and treatment of clients with sub acute low back pain involves a change of pattern from decreasing passive to increasing active intervention. However, Hill et al (2010) found that clinicians tailor their decisions according to patient’s expectations and demands for treatment and clinicians use knowledge of difficult life circumstances that may be unrelated to back pain.

2.6 Review of Methodology

The review of methodology looked at the two tools which were used to gather data namely proforma audit tool and focus group discussion. The review will look into the values, limitations and how to overcome the limitations of each method.
2.6.1 Audit tool

A proforma is a standard tool developed by the Chartered Society of Physiotherapy (CSP). Gumery et al (2000) in their audit of physiotherapy records, adopted a proforma from the Chartered Society of Physiotherapy (CSP). The CSP (2000) proforma for patient record audit consists of informed consent, assessment, examination, analysis, treatment planning, implementation, evaluation, discharge, documentation and patient and physiotherapy safety. However, Gumery et al (2000) only used part of the proforma, they looked at the four main categories used which were registration details, subjective assessment, objective assessment and treatment planning and evaluation.

Audit data are gathered through retrospective evaluation of patient records, (May, 2003; Hammond et al, 2005 and Ma Man Fong 2006). Audit as a method of data collection has got some strengths and weaknesses. The advantage audits have over interviews or questionnaires is that they establish actual practice in contrast to often retrospective information provided by respondents, which reflect assumptions or intentions of good practice, (Turner et al, 1999). The limitation of an audit is that of incomplete data and that respondents see an audit as an imposed external monitor of performance, (May 2003). To overcome the problem of incomplete records, May (2003) excluded the records from the analysis.

Hammond et al (2005) carried out a pilot on what in a range of hospitals to validate their audit tool, no adjustments were done. To check reliability Irwin et al (2005) they selected two separate auditors to audit five cases at each site independently. The changes and refinements were made to the words in question, for example in 1998/1999 the question “Is there evidence that the skills were taught?” in 2001/02 this was changed to read “Is there evidence that the skills required to care for the patient at home were taught?” The reason for change was due to grammatical errors.
2.6.2 Focus group discussion (F G D)

Wong (2008) defined focus group discussion as “a form of qualitative research method in which the interviewer asks participants specific questions about a topic or an issue in a group discussion”. He went on to explain that the number of people in the focus group discussion should be between 6 and 12. A larger group lacks cohesion and may break into side conservation or participants may become frustrated if they have to wait long for a turn to respond. A smaller group (four to six participants) is preferred when the researcher wants equal participation from each subject.

Focus group discussions are used because “they encourage participants to talk to one another, exchange anecdotes and clarify views”, (Curtin and Jaramazovic 2001). According to Harman et al (2009) focus groups are used to validate audit results and deepen understanding of practice. The other advantage of focus group discussion are that they allow gathering of large amount of data in a short space of time and it is cheap. (Seale and Barnard, 2002; Kotzeva et al 2010).

However, the focus group discussions have some disadvantages: “the findings cannot be generalised” and “they require careful, tedious planning and intricate analysis”, (Seale and Banard, 2002; Wong, 2008; Kotzeva et al, 2010). Focus group discussions are used in conjunction with other data collection tools so that their weakness is blended with the strength of the other tool.

To validate the focus group discussion questions pre-testing of the questions to be discussed in “mock” focus groups discussion is essential, (Wong 2008). To validate the questions, Lindsay et al (2008) pilot the FGD questions of the questionnaire on 3 physiotherapists. To assess face validity, the questions were discussed with each therapist individually, question by question to ensure the questions were understood and meaningful. No amendments were made before the wider use of the questionnaire. Kotzeva et al, (2010) asked questions participants to read and comment on the transcription content in order to validate the data their FGD.
A tape recorder is a useful adjunct in a focus group discussion in verifying the points in the discussion which may need clarity from notes taken. A tape recorder is advantageous since one can play it back and capture information, (Billis et al 2007: Wong 2008).
CHAPTER THREE - METHODOLOGY

3.0 Introduction

This chapter describes the methodology of the study, which are the procedures which were carried out to collect the data. The study design, target population, study sample, research instruments are described. Description of the pre-test, and how data analysis was carried out, is given. Finally, the ethical considerations relating to the study are provided.

3.1 Study design.

1. The study was a retrospective audit of patient assessment records of all outpatients who presented with low back pain conditions at Parirenyatwa hospital’s physiotherapy department during 2010-11.
2. A focus group discussion of current physiotherapy staff was done.
3. A tape recorder was used during the focus group discussion to ensure that all information was collected.

3.2 Sample

1. The sample consisted of the physiotherapy assessment records for patients presenting with low back pain at Parirenyatwa Hospital in the period January 2010 to December 2011 who met criteria given below.
2. Four physiotherapists working at Parirenyatwa participated in the focus group discussion.

3.2.1 Sample selections

1. A purposive sampling was done for the audit, where all low back pain patient assessment records meeting criteria were used. All assessment forms with a diagnosis of low back pain condition at Parirenyatwa Hospital’s physiotherapy department in the period January-December 2010-11 who met the criteria below were included. A total of 86 records met the inclusion criteria and only two which did not meet the criteria were eliminated.
2. Physiotherapists for the focus group discussion were chosen on the basis of working at Parirenyatwa and volunteered to participate in the discussion.

3.2.2 Inclusion criteria for audit

- Assessment forms of patients treated at Parirenyatwa Hospital aged 18 years and above with a diagnosed low back pain condition during 2010-11

3.2.3 Exclusion criteria for audit

- Assessment forms of patients treated at Parirenyatwa Hospital aged below 18 years with a diagnosed low back pain condition during 2010-11
- Assessment forms of patients treated at Parirenyatwa Hospital 18 years and above with a diagnosed low back pain condition during 2010-11 with incomplete data
- Assessment forms of patients treated at Parirenyatwa Hospital with another diagnosis which is not low back pain condition during 2010-11

3.2.4 Inclusion criteria for focus group discussion

- Physiotherapist working at Parirenyatwa hospital during the year 2012 and is not on leave on the day of the focus group discussion.

3.2.5 Exclusion criteria for focus group discussion

- Physiotherapist working at Parirenyatwa hospital during the year 2012 but on leave/absent on the day of focus group discussion.

3.3.1 Instruments

3.3.1.1 Proforma

- A proforma assessment form from the CSP (2000) standard guidelines for physiotherapy practice for documentation, assessment, treatment planning and evaluation was adopted and used. No amendment was done on the audit tool since it had been pre-tested in various sites where physiotherapist work, (Sumner et al, 2000). The tool meets
the requirements of Zimbabwe because it has been piloted in public and private hospitals outside the country and the assessment form at Parirenyatwa has all the aspects that are on the audit tool except for aspects: patient’s perception and expectations, precautions, short and long term goals.

3.3.1.2 Focus group discussion tool

- The focus group discussion questions were designed by the researcher to obtain specific information to this research (Appendix D). The pre-established questions included one question adopted from validated ones from a study “The clinical and cultural factors in classifying low back pain patients in Greece” by Billis et al (2007). The adopted question reads as follows; “What are the evaluating features (questions and clinical tests) you would utilise when assessing a patient diagnosed with a mechanical low backache and trying to distinguish his LBP subcategory”. This question was included under focus group discussion because it answered objective number 4, “factors at play during LBP patient assessment.” In the current study a focus group discussion was conducted using the four physiotherapists who work at Parirenyatwa to have a fine detail which the proforma would not retrieve. The researcher gathered data during a 60 minute discussion using a tape recorder. Open ended questions were asked by the facilitator so that the topic could be explored fully.

3.3.2 Validity and Reliability

3.3.2.1 Validity of Audit tool

- The audit tool used in this study was a standard instrument from the Chartered Society of Physiotherapy, the tool was tested for validity by piloting in eight different sites which were representative of the whole physiotherapy profession. The tool can be used in Zimbabwe hospital settings.
3.3.2.2 Validity for focus group discussion tool

- A pre-test of focus group questions was carried out to see if the questions designed for focus group were clear and to see if all desired information as outlined by objectives was gathered.
- To validate the data from the discussion the participants of the focus group were asked to read and comment on transcription content.

3.4.1 Procedure for the audit

- The permission to carry out the audit study was sought in writing from Joint Research Ethics Committee of the Parirenyatwa Group of Hospital and the University of Zimbabwe’s College of Health Science and permission was granted (Appendix A).
- The data gathering commenced on the 27th to the 30th April 2012, this was done every day from 8am to 3pm. Twenty-two records were audited per day.
- The assessments for different conditions were mixed which took time to select the records which fitted the criteria and then audit them. A comparison of assessment forms of patients who presented with low back pain and the proforma was carried out until all the 86 records were compared. The following information was collected: informed consent, assessment, examination, analysis.
- Details on the treatment planning, implementation, evaluation, discharge, documentation and patient and physiotherapy safety were also collected.
- The areas on the assessment form which tally with that on the audit tool were given a tick and those which did not tally were given an X.
- The aspects which had many ticks on them were noted to be most documented whilst the least documented had few ticks. At the end of the audit all the proforma were kept in safe cabinet awaiting analysis.
### 3.4.2 Procedure for the focus group discussion

The permission to carry out a focus group discussion was sought from the Head of Physiotherapy Department of Parirenyatwa Hospital and was granted verbally. Physiotherapists participating in the study were required to sign a letter of informed consent (Appendix B).

- A pre-test of the questions designed for focus group was carried out at the department of physiotherapy medical school on five physiotherapists. The pre-test was done to check for clarity and any presence of ambiguity and also to see if all desired information as outlined by objectives was gathered.
- A pre-test was carried as follows; the questions were discussed with each physiotherapist individually, question by question to ensure the questions were understood and meaningful.
- From the pre-test the results indicated that the number of questions were too many and therefore the questions were merged and irrelevant ones left out. The phrasing for some of the questions was changed, for example the following question “do you have guidelines for management of low back pain? If No what do you use? If yes what are the guidelines” was changed to “What guidelines do you use in the management of low back pain.

- On the 30th of April the retrieving of records for audit was carried out around 9am. A focus group discussion was conducted 3 days after retrieving records for audit.
- An information pack was distributed to each participant, comprising a consent form, discussion questions and draft papers
- The researcher, a research assistant and the group members were asked to introduce themselves formally. The researcher led the group discussion whilst the research assistant recorded all what transpired but did not participate during the discussion.
- In order to clarify to the participants the scope of the focus group a formal explanation from the researcher took place before group discussion. The group members were told
purpose of the focus group discussion, the kind of information needed and how the information was to be used.

- The researcher and the participants set the ground rules that is, no interruptions, no side conservations and that there were no right or wrong answers, after the ground rules the researcher initiated the discussion.

- At the end of the discussion the researcher and the research assistant met and completed the notes gathered during the discussion.

- The information was grouped into various themes which emerged from the discussion.

### 3.4.3 Data analysis for the audit data

All the assessment forms were checked by putting an ‘X’ on right corner of the first page to avoid replication. The information gathered on assessment forms was captured, processed and analysed using EPI info version 3.5.3. The results were presented as line or bar graphs so that a pictorial view made it easier to compare and summarise various items on the assessment form. The Yes/No questions of the pro forma were reported using simple percentages. Frequencies were used to show the baseline characteristics of the demographic information.

**Data analysis for the focus group discussion data**

The qualitative data from the focus group discussion were grouped into themes with relevant verbatim quotes used to capture unique points made by the participants in the discussion.

### 3.4.4 Ethical Consideration

Permission and ethical clearance of the research protocol were sought from Parirenyatwa hospital’s Director of clinical services, the Head of Physiotherapy department and the College of Health Sciences Research Ethics Committee (Appendix A). Informed consent was requested from focus group discussion participants (Appendix B).
4.0 Introduction
This chapter presents the results of the study which sought to answer the following research questions, “Are physiotherapists adequately assessing low back pain patients? What are the factors at play?” These results are presented under various headings which reflect the objectives of the study.

4.1 Demographic characteristics of records
Out of a total of 88 records 86 were suitable for data analysis yielding a response rate of 86/88 (97.7 %). The Parirenyatwa assessment tool had the following areas under demographic data: name, age, sex, hospital number, name referring doctor and diagnosis of patient. All the 86 records had all the demographic information of the patients and the physiotherapy department secretary is the one responsible for recording the demographic information of the patient.
4.2 Age and Gender of patients

Figure 4.1 below shows the age group and gender of patients.

Figure 4.1 Frequency of Low Back Pain by Age-Group and Gender, Physiotherapy Department, Parirenyatwa Hospital, 2010-11
4.3 Clinical Audit

The results of the clinical audit are presented graphically in Fig. 4.2. below.

4.3.1 Subjective assessment

Figure 4.2 below shows the trend of the most and least documented subjective information.

**Figure 4.2 Subjective information gathered by Physiotherapist during assessment of Low Back Pain patients, Physiotherapy Department, Parirenyatwa Hospital, 2010-11**
4.3.2 Objective assessment

The most documented objective information is palpation whilst the least documented is outcome measurement at the end of episode as shown in figure 4.3 below.

**Figure 4.3** Objective information gathered by Physiotherapists during assessment of Low Back Pain patients, Physiotherapy Department, Parirenyatwa Hospital, 2010-11
4.3.3 Treatment plan, implementation and evaluation

The aspects which make up the treatment plan, its implementation and evaluation are highlighted in the figure 4.4 below.

**Figure 4.4** Information gathered by Physiotherapists during treatment plan, implementation and evaluation of Low Back Pain patients, Physiotherapy Department, Parirenyatwa Hospital, 2010-11
4.4  **Demographic characteristics of physiotherapists who participated in the FGD.**

**Table 4.1** below shows the age, gender and work experience of physiotherapists who work at Parirenyatwa who took part in the focus group discussion.

**Table 4.1  Gender, age and work experience of physiotherapists**

<table>
<thead>
<tr>
<th>Number</th>
<th>Gender</th>
<th>Age(years)</th>
<th>Work Experience(years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>26</td>
<td>$2^{1/2}$</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>26</td>
<td>$2^{1/2}$</td>
</tr>
<tr>
<td>3</td>
<td>Female</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Female</td>
<td>30</td>
<td>$5^{1/2}$</td>
</tr>
</tbody>
</table>

4.5.  **Results of the focus group discussion**

The focus group discussion aimed at exploring factors that are at play when assessing low back pain patients. The results are presented in terms of the verbatim quotes to capture unique points.

4.5.1  “**What do you think of patient assessment in general?**”

Two of the four participants talked about patient assessment in terms of “baseline” and “problem finding approach”:

*(Physio A)*...important aspect of therapy used as **baseline**, comparing severity and planning.

*(Physio B)* Assessment is a **problem finding approach** where you get the **history of the patient** which gives flow of patient management....

However, the other 2 of 4 physiotherapists had a different meaning of what they think about patient assessment:

*(Physio D)*...you get to **know differential diagnosis**
4.5.2  "What guidelines do you use in the assessment and management of LBP?"

Issues of guidelines physiotherapists use were apparent in the discussion, the four participants talked about experience, attitude, competence and listening to the patient’s complaints:

(Physio A). Listening to patient’s complaints guide to what I have to focus on and leads to a more targeted assessment.

(Physio B)... Observation helps to guide in both assessment and management, experience does not guide.

(Physio C) Experience is useful in guiding assessment and management though patients are different. You have to be competent so that you will able to tackle patient’s problem and plan appropriate treatment.

(Physio D)... attitude affects your performance, feelings result in success or failure. Competence is a measure of how well you can work and is necessary for patient assessment.

4.5.3  "What are the evaluating features you would utilize when assessing a LBP patient?"

The ideas that underpin what aspects should be assessed on a low back pain patient are patient’s problem, expectations, posture and function. These were the ideas that the four physiotherapists focused on when deciding what to evaluate:

(Physio A). Listening to patient’s account of their problem.

(Physio B). Patient’s expectation is an important evaluating feature although it is normally forgotten when working under pressure.

(Physio C)... movement, sensation, posture since back affects a lot of things like muscles and function.

(Physio D)... it cascades into the bedroom therefore include; sexual function.
4.5.4 “Which information do you think is important on an assessment form when assessing a low back pain patient?”

Three Physiotherapists varied in what they thought was important when carrying out an assessment as follows:-.

*(Physio A)*...24 hour pain behavior, function and occupation are the important aspect of assessment.

*(Physio B)* Subjective assessment is important since you get into depth of patient’s problem.

*(Physio C)*...important information on assessment is patient’s complaint and their expectations.

4.5.5 “Drawing from your experience as a physiotherapist, what do you consider have been the main benefits of clinical supervision for you?”

*(Physio A)* For me it has helped me see competence needed for smooth transition of theory into practical.

*(Physio B)* Supervising someone forces one to read and helps see intellectual ability.

*(Physio C)* Supervision is important because it helps you so that you do not get lost, without supervision you use trial and error.

The Senior physiotherapist supervises a junior physiotherapist and s/he in turn supervises the rehabilitation technician.

4.5.6 “What problems have you experienced?”

Shortage of physiotherapists has been a major burden to the physiotherapy department.

*(Physio A)* Staff shortage is a challenge in supervision since our seniors are not always there or they are committed.

*(Physio B)* The normal physiotherapist: patient ratio is 8-10 patients per day but due to shortage of staff we are seeing an average of 15 patients per day. We are now trying to maintain the standard by seeing a minimum of eight patients per day.
Due to shortage of staff we are closing outpatient and now concentrating with in-patients. Workload causes us to rush through the assessment so that every patient is seen.

Quality of assessment and intervention is compromised secondary to staff shortage.

4.5.7 “What challenges are you facing in the use of the current assessment form in assessing low back pain?”

The responses of the four physiotherapists on the above question were as follows:

(Physio A) We have not been trained on how to use the current assessment form and if you do not hear about CPDs you miss out and it is a problem.

(Physio B) CPD is affected by funding.

(Physio C) ...we should lobby to the ministry or through Zimbabwe Physiotherapy Association for funding of CPDs.

(Physio A) The current assessment form is general; there is need for specific tools for specific conditions so that you do not miss out on important areas.

(Physio D) They are missing sections like range of motion and functional assessment.

4.5.8 “What factors are affecting patient assessment?”

The responses to the above question were as follows:

(Physio A) ...therapist morale and job satisfaction.

(Physio B) ...role conflict and work relation.

(Physio C) knowledge, experience, competence. Workload-booking system should be monitored.

(Physio D) Patient’s cooperation and level of education.

4.5.9. The participants of the focus group discussion additional comments

Participants of the FGD made additional comments as follows:-

(Physio A) Knowledge is dynamic therefore there is need to continuously update yourself.
(Physio B) .....being thorough in assessment and treatment.

(Physio C) .....we should have a specific form for specific conditions.

(Physio D) It is a matter of competence and attitude because we can do the best with what we have.
5.0 Introduction

This chapter discusses the findings of this study in line with the objectives of the study. The main objectives of the study were to audit assessment forms used for patients presenting with low back pain conditions at Parirenyatwa Hospital’s Physiotherapy Department during 2010-11, using a CSP proforma, the research sought to find out from the Physiotherapists factors contributing to the way assessments for low back pain were being carried out through a FGD. In addition, physiotherapists’ beliefs/opinions on the factors affecting a good assessment of patients with LBP were established through a focus group discussion with four of the physiotherapists working at Parirenyatwa. The strengths and limitations of the study are also presented.

5.1 Prevalence of Low Back Pain

Low back pain constituted thirteen percent (13%) of all the musculoskeletal conditions during 2010-11, this number is rather “low” for a biggest referral hospital in Zimbabwe to have only 86 patients and this may have been because the author was only interested in documented information from department records. On the other hand, the other reasons for the low percentage maybe due to for example: the institution only treating patients coming from the zonal area it covers before zoning patients could come from anywhere. Personal communication with the doctors at an orthopaedic clinic said they rarely attended to low back pain patients and if they presented they were usually prescribed Ibuprofen and discharged home without referral to the physiotherapy department. The other challenge was that of new patients presenting with low back pain and in need of immediate attention were put off by the booking process forcing them to seek treatment from other institutions where they would get immediate attention.
5.2 Age of LBP patients seen at Parirenyatwa

In the current study 58% of the patients who presented with low back pain were 50 years and above. At 50 years and above, the spine starts to develop some degenerative changes and this will present as back pain as bone growth (osteophytes) impinge the nerve roots or skin. Balague et al (2010) support that there is an association between low back pain and degenerative changes. The lowest percentage of patients was in the age group 20 to 24 years (2%), in this age group the most common cause of low back pain may be poor ergonomics leading to mechanical back ache.

5.3 Information gathered during LBP assessment

The audit results showed that physiotherapists were not assessing all areas highlighted on the assessment form. This could be one of the reasoning why the records would not comply 100% with the standard.

The documentation of demographic information is captured by the secretary; this should make good record keeping. However, there was poor filing of assessment forms. The records were mixed regardless of year and condition. All the records were documented at the start of the initial contact and immediately after contact with the patient. This helped to make sure all information was recorded while still fresh to avoid recall bias. The recording was concise, legible, logical and dated and signed so that it is easy to identify the physiotherapist who managed the patient.

5.4 Subjective information gathered during assessment of LBP patient

The most documented information during subjective assessment was presenting condition, past medical history, social and family history, current medication and investigations. This is in agreement with a study by Gumery et al (2000) who noted the same information. In the current study it was noted that five out of the seven categories under subjective assessment scored 60% above completion. However, this was lower than that of Gumery et al (2000) who noted a score of 85% and above. The difference may be due to the fact that the current study’s participants used a general assessment form as mentioned in the FGD whilst Gumery et al
(2000) used a condition specific assessment form. Even though 97.7% of the records had documentation about social histories, there were mostly concerned on occupation and marital status, not other aspects of a person’s lifestyle.

The least documented subjective information were on of patient’s perception and expectation of treatment outcome. This author asserts that there is need for agreement between the patient and physiotherapist as regards goals of treatment. There was zero documentation of goals and outcome measures. Although the therapist might have assessed everything but left it out in the documentation, not recorded means not done. A similar study by Sumner et al (2000) noted that only 39% of the records had documentation about patient’s expectations. They used records from 8 different sites which might neutralize other institutions which do not record patient’s expectations as compared to the current study which used records from one site.

5.5 The different views about what information to gather during subjective assessment
In this study the 4 therapists gave 4 different views on what information was important to gather during a subjective assessment. In Zimbabwe, physiotherapists during their third year of training are taught this aspects during joint mobilisations so that they come up with decision and information on severity of problem.

Other authors have viewed subjective assessment differently; Billis et al (2007) highlighted function and psychosocial features as part of subjective assessment whilst Blackburn et al (2009) noted the following factors; “24 hour pain behaviour” and special questions (The special questions were quering if the current condition is family related or any link with other conditions like diabetes and arthiritis) in addition to those noted under subjective assessment in the current study

5.6 Objective information gathered during assessment of LBP patient
In the current study it was noted that 4 out of the 8 categories under objective assessment scored 57% and above completion. The problem list was documented in 66% of the records. In
contrast, Turner et al (1999) noted 28%. The discrepancy maybe due to the fact that the physiotherapists who took part in the current study might have learnt from Turner’s study.

The **most documented aspects during objective assessment** were observation, palpation, problems and specific assessment tools.

Palpation is one of the most common aspects of objective assessment so hands of the physiotherapists must recognize normality and deviations when palpating skin, muscles and joints, Jacques (2005).

The **least documented information under objective assessment** was impression of clinical diagnosis; this might be due to the laziness of physiotherapists who depend on the doctor’s diagnosis and not have an impression of their own which might be different from the doctor’s. Goals, advice and outcome measure at the end of treatment programme were some of the least documented information. The current study had no documentation of goals, this is in contrast to Turner et al (1999) and Sumner et al (2000) who noted (7.4%) and (33%) respectively. Still these low figures rather confirm that this is a weak area for physiotherapists.

**5.7 The different views about what information to gather during objective assessment**

There is a dichotomy between authors as regards what an objective assessment is comprised of, (Billis et al, 2007; Gaskell 2008; Blackburn et al, 2009; Southorn 2010). The discrepancy on areas assessed during assessment of LBP may be due to what Gaskell (2008) and Southorn (2010) were more detailed this were text book assessment and looked at musculoskeletal assessment in general whilst Billis et al (2007) and Blackburn et al (2009) this were studies involving assessment of low back pain patients. Physiotherapists tend to use textbook type of assessment from which they were taught by clinical instructors how to assess than that from research articles. The results of the study showed that they were more related to the text book type of assessment.
5.8 Focus group discussion response

A focus group discussion is an invaluable tool in health and medical perspective; Wong (2008). The current study had four participants in the focus group discussion. This was because the other three physiotherapists were on leave. Seale and Banard (2002); Kotzeva et al (2010) found out that they could not generalize their FGD findings since it maybe difficult for the researcher to identify an individual message. To overcome this challenge the focus group outcome was combined with audited data. The combining of a qualitative method (FDG) with a quantitative method gives strength to the research being carried out.

5.9 Physiotherapists’ view about assessment in general

Assessment is an important aspect of therapy as baseline. It is a problem finding approach where you get the history of participant, gives a flow of patient management, determine changes negative or positive. In assessing you get to know the differential diagnosis. However physiotherapists’ morale and job satisfaction affects patient assessment. Assessment was also found to be affected by role conflict and adverse work relations. Physiotherapists in the discussion highlighted that “patient’s cooperation, level of education, listening to patient’s account of their problem, everything that the patient can tell you about their pain is important information when assessing.” The 24 hour pain behavior, function and occupation are important aspects of low back pain assessment. Patient’s complaint and their expectations is an important aspect of assessment. Listening to patient’s complaints guide to what you have to focus on and leads to a more targeted assessment. Patient’s expectation is important but it is normally forgotten when working under pressure. The current assessment form is too general and is not relevant to low back pain assessment. There is need have specific assessment form for low back pain.
5.10 Clinical Supervision and LBP patient assessment

The current study found out that clinical supervision helps physiotherapists “not to get lost” when assessing low back pain patients. In addition, the results of the study show that “clinical supervision was important as it forces one to read and therefore helps with intellectual ability”. This findings on the importance of clinical supervision in the assessment of low back pain is supported by (Clouder and Sellars (2004); Sellars (2004); Hall and Cox (2009). However, the way clinical supervision is viewed by the one being supervised may affect the provision of quality service through supervision. Studies on clinical supervision showed that quality of service can improve through supervising [Clouder and Sellars (2004); Sellars (2004); Hall and Cox (2009)]. Results of this study indicated that Physiotherapists realise that clinical supervision is important but due to staff shortage nobody, hads time to supervise subordinates.

5.11 Continuing Professional Development and LBP patient assessment

The findings of these results suggest that topics for continuing professional development being taught were not in line with areas physiotherapists are lacking, this was more like a top down approach. Discrepancy in the way continuing professional development courses are administered may be due to lack of proper communication between government physiotherapists which has the bulk of therapists and the Zimbabwe Physiotherapy Association which is lead by few private therapist which then lead them to organize CPDs related to what they want. The limitation to government therapists is poor remuneration which lead them not to organising courses they want.

The results of the study showed that continuing professional development encourages physiotherapists to be well versed with current information.

However, continuing professional development activities are affected by a lack of funds and a shortage of staff. Gumery et al (2000); Noll et al (2001); Clouder and Sellars (2004); Kane (2009). Willet et al (2011) support that lack of funding and shortage of staff affects provision of CPDs. The govenrment therapists should request for more in house training because it will be cheap to carry out the courses since it employ a greater number of therapists.
5.12 Shortage of Physiotherapists and LBP patient assessment

The results of the current study identified shortage of staff as one of the factors contributing to poor provision of quality service. The results also identified that physiotherapists rush through assessment to cover the high workload thereby leaving other important aspects. Previous research has highlighted staff shortage as a factor leading to stress and decreased job satisfaction, (Wilkinson et al, 2007; Lindsay et al, 2008; Kane 2009).

5.13 Work experience and LBP patient assessment

The physiotherapist’s work experience was found to have an impact in the way assessment of low back pain is carried out. This is supported by previous research which noted that clinical reasoning is influenced by work experience and this influences the assessment of patients, (Noll et al, 2001; Jacques 2005; Ma Man Fong 2006; Davies and Howell 2012). In contrast, Resnik and Hart (2003) found no difference in using work experience to assess and achieve desired treatment outcome.

5.14 Clinical Competence and LBP patient assessment

In the current study results of competence showed that clinical competence is necessary for patient assessment. This is supported by Daykin and Richardson (2004) and Limb (2008), the more competent the physiotherapist, the more confident he is in assessing low back pain patients.

5.15 Attitude and LBP patient assessment

The results of the current study identified how attitude of physiotherapist affects performance, feelings and result in success or failure of assessment. In support (Daykin and Richardson (2004); Bishop and Foster (2010)) highlighted that having a positive attitude when assessing facilitates adoption of best practice. The health related attitude that physiotherapist possess, however, did not explain widespread use in assessing low back pain patients. Therefore it is important to note that attitude of a physiotherapist when assessing a patient does not guarantee behaviour when carrying out an assessment.
5.16 Limitations of study

- Parirenyatwa was the only hospital with patient records and assessment forms therefore this limited the sample size of audit records.
- The physiotherapy outpatient department was closed which also limited the number of outpatients, which include many of the low back pain patients.

5.17 Strength of study

- Methodology used audit and focus group discussion is complement which brings out good results.
- Identified areas which were being left out during patient assessment of low back pain.
- Identified factors which are at play and affect the assessment of low back pain patient.
- Highlighted that shortage of staff leads physiotherapists resorting to “helicopter” assessments which compromises the quality of care rendered.
- The audit was performed at one specific institution.

5.18 Conclusion

In this chapter, the findings of the study have been discussed. Similarities with other studies were found with the most and least common assessed subjective and objective information and factors which were at play when assessing were also discussed. The next chapter will explain recommendations based on the findings and conclusions made.
CHAPTER SIX - CONCLUSION AND RECOMMENDATIONS

6.0 Introduction
This chapter concludes and gives recommendations on the current study. The objectives of the study were to identify the information obtained and left out during low back pain assessment.

6.1 Conclusion
Record keeping should not entrusted entirely to a secretary without supervision so that s/he appreciates what information is important, the correct way of filing, knowing the differences in the different diagnostic categories and so on. The audit was performed at one specific institution.

The most documented information during subjective assessment was presenting condition (96%), past medical history (89.5%), social and family history (97.7%), current medication (79.1%) and investigations (79.1%). The most documented aspects during objective assessment were observation (66.5%), palpation (81.4%), problems (66.3%) and specific assessment tools (57%). The most documented information has been identified.

The least recorded subjective information was patient’s perception (0%) and expectation (0%). The least documented information under objective assessment was impression of clinical diagnosis (7%), result of outcome measurement at end of the episode (4.7%), result of outcome measurement (22.1%). Identified areas which were being left out during patient assessment of low back pain.

The main factors at play when carrying out an assessment in this study were clinical supervision, continuing professional development, shortage of staff, work experience, competence and attitudes. Identified factors which are at play and affect the assessment of low back pain patient.
The current assessment form is quite relevant to a certain extent but the challenge is that it is not condition specific as shown in this study of LBP which showed that key areas of assessment of the spine were not actually recorded such as range of motion, functional activity and patient’s perceptions. The current results highlighted that shortage of staff leads physiotherapists resorting to “helicopter” assessments which compromises the quality of care rendered.

Finally physiotherapists need to put their heart in every patient they treat, to perform a proper assessment which yield successful outcome.

6.2 Recommendations

1. Be specific – government physiotherapists must design an assessment form specific for LBP patients and which must include the following key areas;
   - the patient’s perceptions and expectations of their needs
   - 24 hour pain behaviour and functional activity
   - contraindications/precautions/allergies
   - Analysis of problem
   - Short and long term goals
   - Evaluation of treatment
   - Social history section should include details like the lifestyle of the patient

2. Physiotherapists working at Parirenyatwa Hospital should make an effort to quality check each other through regular supervision (this counts as CPD activity as well).

3. The Ministry of Health and Child Welfare should employ more Physiotherapists at Parirenyatwa and ensure that the OPD department is functional. This is crucial for the most eminent government referral hospital.

4. Regular auditing of care rendered and regular case presentation within the department is an essential component for maintaining quality assurance as well as being more focussed CPD activity.
5. The previously active Government Therapists Group (GOTIG) which included Physiotherapists should be resuscitated to champion matters of specific interests in service delivery. The Ministry has in the past made funds available for these CPD activities.
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Appendix A

ETHICAL APPROVAL LETTER
COVER LETTER

University of Zimbabwe
Department of Rehabilitation
P.O Box A178
Avondale
Harare
Dear Physiotherapist

RE: AN AUDIT OF CLINICAL ASSESSMENTS OF LOW BACK PAIN CONDITIONS MANAGED AT PARIRENYATWA HOSPITAL’S REHABILITATION DEPARTMENT: 2 YEAR RETROSPECTIVE STUDY (2010-11)

I am a final year Physiotherapy Masters student at the University of Zimbabwe currently doing a study on the above titled study in partial fulfilment of my degree program requirements.

The above titled study is aimed at determining areas which were being assessed and which were not being assessed during management of LBP patients.

You are requested to kindly participate in this study. If you agree to take part in this study, you are requested to sign the consent portion at the bottom of this letter then take part in the focus group discussion. The information obtained will be treated with utmost confidence.

You are required to return back the consent form immediately after signing. You may withdraw from the study at any time if you wish and will not incur any penalty for doing so.

Your participation will greatly be appreciated

Yours faithfully

Dunmore Musendo

CONSENT FORM

I……………………………………………………………………………………………………………………….voluntarily agree to take part in a focus group discussion of the topic “An Audit of clinical assessments of low back conditions managed at Parirenyatwa Hospital’s Rehabilitation Department: 2 year retrospective study (2010-11)” by Musendo Dunmore. If I wish I can terminate myself from the study and will not incur any penalty for doing so and I believe that my confidentiality will be granted.

Date……………………………………………………

Signature…………………………………………….
Appendix C

AUDIT TOOL: PROFORMA
Appendix D

FOCUS GROUP QUESTIONS

1. What do you think about patient assessment in general?
2. What guidelines do you use in the management of LBP?
3. What are the evaluating features (questions and clinical tests) you would utilize when assessing a patient LBP?
4. Which information do you think is important on an assessment form when assessing a low back pain patient?
5. Drawing on your experience as a staff member, what do you consider have been the main benefits of clinical supervision for you? What problems have you experienced?
6. What factors affect patient assessment?
7. What challenges are you facing in the use of the current assessment form in assessing low back pain?
8. Do you have any additional comments regarding the assessment of low back pain that you currently do?
Appendix E

PARIRENYATWA ASSESSMENT FORM
# Appendix F

## AUDIT CODE SHEET

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