

STUDENT NAME:	Pierre Röscher
STUDENT NUMBER:	216072042
COURSE NAME:	Masters Research in Physiotherapy
DEPARTMENT:	Physiotherapy
COURSE CODE:	PHTH4SYW0
SUPERVISOR:	Mr N. Pefile
CO-SUPERVISOR:	Mrs L Jacobs, Mr R van Bever Donker
DATE OF SUBMISSION:	30 November 2016

TITLE OF DISSERTATION:

The Afrikaans Translated and Culturally Adapted Version of the STarT Back Tool.

The Afrikaans translated and culturally adapted
version of the STarT Back Tool.

Pierre Röscher

Submitted in fulfilment of the requirements for the degree of Master of Physiotherapy in the
School of Health Sciences, University of KwaZulu-Natal for a Masters by Research thesis.

Date of Submission: 30 November 2016

Preface

The study was motivated by the fact that the researchers first language was Afrikaans and that he had identified the need for an Afrikaans screening tool for Lower Back Pain.

Declaration

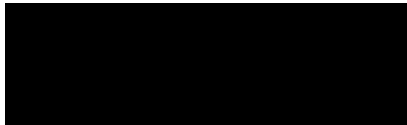
I, Mr. Pierre Röscher, declare as follows:

That the work described in this thesis has not been submitted to UKZN or other tertiary institution for purposes of obtaining an academic qualification, whether by myself or any other party.

That my contribution to the project was as follows: My work on this project started in July 2015. The research, development and writing of this project has been done by myself. I submit this work as my own.

That the contributions of others to the project were as follows: I was supported by my supervisors and guided regularly.

Signed :

A solid black rectangular box used to redact the signature of the author.

Date: 29 November 2016

Acknowledgements

My work has been based on the original Keele Universities STarT Back Tool. I would like to acknowledge Dr. Jonathan Hill from Keele University for granting me permission to use the Keele STarT Back Tool. I would like to thank my supervisors, in Particular Mr. Rogier Van Bever Donker , Ms Lorraine Jacobs and Mr. Ntsikelelo Pefile for their help and assistance. I would also like to thank Dr. Ina Diener, Prof. Benita Naude and Prof. Mershen Pillay for their guidance. I would like to acknowledge the University of KwaZulu-Natal for the financial and assistance and support to make this study possible. Lastly and most importantly, I would like to thank my wife, Mandy Röscher for all her love and support, I could not have finished this project without her.

TABLE OF CONTENTS

1.	Introduction.....	1
1.1.	Chapter Outline.....	1
1.2.	Introduction and Background Information.....	1
1.3.	Purpose of Study.....	3
1.4.	Research Objectives.....	3
1.5.	Problem Statement.....	3
1.6.	Significance Motivation.....	4
1.7.	Abbreviations	5
1.8.	Thesis.....	5
1.9.	Delineation.....	5
1.10.	Research Question.....	5
2.	Literature Review.....	6
2.1.	Chapter Outline.....	6
2.2.	Introduction.....	6
2.3.	Lower Back Pain.....	7
2.4.	Epidemiology and Prevalence of LBP.....	7
2.5.	LBP Management and Clinical Guidelines.....	8
2.6.	LBP and Disability.....	9
2.7.	Stratified Care for Optimal Outcome.....	10
2.8.	Keele STarT Back Screening Tool.....	11
2.9.	The Need to Translate and Adapt the STarT Back Tool.....	12
2.10.	Translation and Cultural Adaptation.....	12
2.11.	Translating into the Afrikaans Language.....	13
2.12.	Conclusion.....	14
3.	Methodology.....	15
3.1.	Chapter Outline.....	15
3.2.	Introduction.....	15
3.3.	Research Setting.....	17
3.4.	Research Design.....	17
3.5.	Study Population and Sampling.....	17
3.6.	Research Instruments Used.....	18

3.7.	Procedure.....	19
3.8.	Analysis of Data.....	20
3.9.	Ethical Consideration.....	20
3.9.	Project Budget.....	21
4.	Results.....	22
4.1.	Chapter Outline.....	22
4.2.	The Results of Stage One to Four of the Six Stage Translation and Cultural Adaptation Process.....	22
4.3.	The Results of the Pilot Testing of the Afrikaans Version of the STarT Back Tool.....	27
4.4.	The Results of the Post Questionnaire Interview of the STarT Back Tool.....	29
4.5.	Recommendations Made by the Pilot Testing Participants.....	29
4.6.	The Final Adaptations Made and the Acceptance of a Final Afrikaans Version of the STarT Back Tool.....	32
5.	Discussion.....	35
5.1.	Chapter Outline.....	35
5.2.	Achieved Aims.....	35
5.3.	Translation and Cross Cultural Adaptation.....	35
5.4.	Language Issues Identified.....	36
5.5.	Contextual Issues Raised.....	37
5.6.	Participants Outcome on the STarT Back Tool.....	37
5.7.	Conclusion.....	38
6.	Conclusion.....	39
6.2.	Chapter Outline.....	39
6.2.	Conclusion of Findings.....	39
6.3.	Limitations of the Study.....	39
6.4.	Further Recommendations.....	40
7.	References.....	41
8.	Appendices.....	44

8.1.	Study Information Sheet for Participants in Afrikaans.....	45
8.2.	Consent Form for Participants.	48
8.3	Practice Information Sheet and Permission Form.....	49
8.4	Data Collection Tools.....	52
8.4.1.	Forward Translation into Target Language Form.....	52
8.4.2.	Form Summarizing the Synthesis of the Two Forward Translations (Version T-12)	53
8.4.3.	Back Translation into English Form.....	54
8.4.4.	Translation Committee Report	55
8.4.5.	Pre Testing Form.....	56
8.4.6.	Interview with Study Participants.....	57
8.4.7	Completed Forward Translations into Target Language a & b.....	58
8.4.8.	Completed Form Summarising the Synthesis of the Two Forward Translations (Version T-12)....	62
8.4.9.	Completed Back Translation into English Form.....	64
8.4.10.	Form Translating the Synthesized English Version back to the Original Language (Version T-3)	66
8.4.11.	Translation Committee Report.....	68
8.5.	English STarT Back Tool.....	70
8.6.	STarT Back Tool Scoring Algorithm.....	71
8.7.	STarT Back Tool Targeted Treatment Algorithm.....	72
8.8.	Pre-Pilot Afrikaans Version of the STarT Back Tool.....	73
8.9.	The Final Version of the Afrikaans STarT Back Tool (STarT-A).....	74
8.10.	Ethical Clearance Form.....	75

List of Tables

Table 4.1:	Report of Discrepancies and Their Resolution.....	23
Table 4.2:	The Keele STarT Back Tool (Afrikaans version) T12.....	25
Table 4.3.2.1a:	Participant Demographics	27
Table 4.3.2.1b:	Level of Education.....	28
Table 4.3.2.2:	Start Back Tool Scoring Analysis and Risk Stratification.....	28
Table 4.5.1:	The Keele STarT Back Tool (Afrikaans version).....	30
Table 4.5.2:	Recommendation of Changes.....	31
Table 4.6.3:	Comparison of Old and New Version.....	33
Table 4.6.4:	The Keele STarT Back Tool (Afrikaans version).....	34

List of Acronyms

LBP:	Low Back pain
DALY's:	Disability Adjusted Life Years
YLD:	Years Lived with Disability
STarT:	Subgroups for Targeted Treatment (Hill et al., 2008)
STarT-A:	The Afrikaans version of the STarT Back Tool
WHO:	World Health Organisation
UK:	United Kingdom

Abstract

Low back pain is a debilitating condition worldwide. The management of low back pain patients can be very effective, especially if the correct approach to management is followed from the onset. The STarT Back Tool is a validated quick and easy self-administered questionnaire that enables clinicians to stratify a patients management option according to their score achieved when they have completed the questionnaire. This effective stratification tool is however not available in the Afrikaans language, the third most spoken language in South Africa. Afrikaans speaking low back pain patients cannot be assessed and stratified with the original English version, as the effectiveness of any questionnaire is dependent on the culture and language of the target population that it is attempting to assess. **Aim:** The aim of this study was to produce a culturally adapted and linguistically accurate Afrikaans translation of the English original version of the STarT Back Tool. **Objectives** To successfully use the 6 stage process described by Beaton et al., 2007 to translate and culturally adapt the English STarT Back tool into Afrikaans. **Methodology:** The cross cultural adaptation and translation of the STarT Back Tool will be performed by using the methods outlined by Beaton et al., 2007. It can be outlined as the following 6 stage process with regards to producing the Afrikaans version of the STarT Back Tool: Stage 1: Translation, Stage 2: Synthesis, Stage 3: Back Translation, Stage 4: Expert Committee Review, Stage 5: Pre-Testing, Stage 6: Final Stage. **Results:** The six stage translation process proved effective in translating and culturally adapting the English STarT Back Tool into Afrikaans. **Discussion.** The results of this study was a linguistically translated and culturally adapted Afrikaans version of the STarT Back Tool: **Conclusion:** The Afrikaans version of the STarT Back Tool (STarT- A) can now be used to screen and stratify Afrikaans speaking patients presenting with low back pain.

CHAPTER 1

1. Introduction

1.1. Chapter outline

This chapter presents the following:

- Present an introduction on what this research study entails.
- To state the purpose of this study.
- To state my research objective.
- To present my problem statement
- To state the significance motivation for this research study.
- To state the abbreviations used in this research study.
- To state my thesis
- To state the delineation of this research study.
- To state my research question

1.2. Introduction and background information

Lower Back Pain (LBP) is a major problem throughout the world (Damian Hoy et al., 2012). It is now recognised as the greatest contributor to disability worldwide, and its impact is predicted to expand over the coming decades (Buchbinder et al., 2013).

The lifetime prevalence of experiencing low back pain amongst Africans is said to be between 28-74 (Louw, Morris, & Grimmer-somers, 2007), and the low back pain global index for years living with a disability has increased by 42,6% between the year 1990 and 2010 (Vos et al., 2014). These numbers are predicted to rise over the next decade as populations are aging and people are living longer than before (Damian Hoy et al., 2012), thus increasing the burden being already put on the global economy.

The debilitating effects of LBP may be broadly grouped under those that affect one's work, those that limit a person's functionality and those that are directly related to experiencing pain (Melloh, Elfering, Presland, & Roeder, 2009). Due to the wide range of disabilities, It is essential that the right patient receives the right treatment at the right time (Foster, Hill, Doyle, & Young, 2014). A stratified approach is where prognostic screening and treatment targeting is used. It has shown

to be effective in improving primary care efficiency, leading to better outcomes for patients with LBP (Hill et al., 2011). These positive outcomes are noted by improvements in physical function, decrease in fear avoidance beliefs, increased treatment satisfaction and fewer days off sick from work (Foster et al., 2014). A stratified assessment and treatment screening tool for LBP has to be user friendly and patient centered.

The Keele STarT back tool is a concise screening tool that has recently been validated in the United Kingdom (Hill et al., 2008). The STarT Back Tool is now currently being used globally by physiotherapists, general practitioners and other healthcare professionals. It is used to identify patients who are at risk of persistent symptoms of low back pain and thereby help them along with their clinicians to make informed choices, based on this prognosis, to improve their clinical outcomes (Foster et al., 2014). It is used to determine whether a patient with low back pain is at a low, medium or high risk of having a poor clinical outcome (Hill, Dunn, Main, & Hay, 2010). The STarT back screening tool is an easy and quick to fill in questionnaire, comprising 9 statements, and simply requires the patient read each statement and to then to tick a small box indicating whether they agree or disagree with a specific statement mentioned in the questionnaire, pertaining to their symptoms in the last 2 weeks. Each statement that is scored as an “agree” scores 1 point, and “disagree” scores 0 points (Hill et al., 2008). The total points are calculated, and the patient is categorized in one of 3 risk categories namely high risk, medium risk or low risk depending on their score (Hill et al., 2008). The risk level predicts the amount of risk, whether low, medium or high, a patient is likely to have to develop long term pain and disability.

The STarT back tool has been successfully translated and validated into many languages around the world, but currently only the English version is available in South Africa. According to the 2011 census, Afrikaans is the third most widely spoken first language in South Africa, comprising 13, 5% of the population, and English is only the fourth most spoken first language in South Africa coming in at 9, 6% (Statistics South Africa 2012). Zulu and Xhosa are the most spoken first languages in South Africa, and these two languages are also in desperate need of having many screening tools translated into Zulu and Xhosa, but this process is quite complicated. Zulu and Xhosa are considered varieties of the Nguni language, and are widely under-resourced. The morphology of these languages are complex. A single word may have multiple meanings, and thus it is difficult to identify the root of a word (Spiegler, van der Spuy, & Flach, 2010). These two languages will be target translations for the STarT Back Tool in the future.

The reliability of the scoring system of any questionnaire depends on the ability of the patient to understand specific words or phrases used in the questions that make up the questionnaire (Beaton et al., 2007). A misinterpretation of these phrases could alter the score and decrease effectiveness of stratification (Beaton et al., 2007). Health questionnaires are most often designed in their original source language of English, but the need for these questionnaires to be adapted into other languages has grown rapidly (Beaton et al. 2007). An Afrikaans speaking patient might not be able to read and understand a health questionnaire printed in English. The aim of this study is to translate the STarT Back Tool into Afrikaans.

1.3. Purpose of Study

To translate and culturally adapt the STarT back tool into Afrikaans.

1.4. Research Objectives

To successfully use the 6 stage process described by Beaton et al., 2007 to translate and culturally adapt the English STarT Back tool into Afrikaans. They are:

Stage 1: Translation

Stage 2: Synthesis

Stage 3: Back Translation

Stage 4: Expert Committee Review

Stage 5: Pre-Testing

Stage 6: Final Version

1.5. Problem Statement

South-Africa has eleven official languages, and Afrikaans is the third most spoken first language in South-Africa. In fact more people speak Afrikaans as their home language than English (Statistics South Africa, 2012). Afrikaans speaking patients seeking medical care for lower back

pain do not currently have a quick and easy screening tool available, in their home language, to predict their prognosis of recovery for their lower back pain.

The STarT back screening tool is a validated outcome measure that is quick to fill in, easy to understand and used by clinicians worldwide to assess prognosis among patients with lower back pain (Hill et al., 2011). This screening tool is given to patients to fill in, and they are required to read certain phrases and answer agree or disagree if a specific phrase is applicable to them. There is currently no translated and culturally adapted Afrikaans version of the STarT back tool available for patients to use. The aim of the questionnaire is to ensure that targeted treatments are prescribed for different subgroups of patients, for example a high risk patient may need more complex treatment approaches to assist them in their recovery.

The STarT back tool was developed in the UK, and has subsequently been translated into many languages across the world spanning from Spanish to Dutch, Norwegian to Mandarin Chinese and French to name a few. It has however not been translated into Afrikaans, one of South-Africa's eleven official languages. It is to be noted that English is one of the eleven official South-African languages, and English is widely spoken and understood by many South Africans. However the English original version has not been culturally adapted to the hybrid South African style of English, and could therefore remain confusing to patients in clinical practice. The Dutch version is the closest possible version to the Afrikaans version, as various similarities arise between these two languages. It is however not a perfect match and not culturally appropriate to Afrikaans speaking patients. There is therefore a need to translate the STarT Back screening tool into Afrikaans and culturally adapt it for use in the clinical setting in South-Africa.

1.6. *Significance Motivation*

The IMPaCT study was a randomised controlled trial that confirmed that the stratified care approach, implemented by using the STarT back Tool, leads to reducing disability in patients (Foster et al., 2014). The study showed that the the STarT Back Tool also halved time taken off work without increasing health costs in patients with low back pain .The IMPaCT study reported that the use of the STarT back tool to stratify patients into specific management programs lead to improved physical functioning, decreased fear avoidance beliefs, increased their satisfaction and resulted in them having less time off work (Foster et al., 2014). It was also reported that physician were prescribing fewer non-steroidal medications, giving fewer sickness certificates and referred more appropriately to physical therapy and that the tool was easy to administer(Foster et al., 2014). It is clear that the development of an Afrikaans version of the STarT back tool will give

Afrikaans speaking patients, who consult clinicians for low back pain, an opportunity to apply an effective prognostic screening tool to match targeted treatment approaches for the patient's best care.

1.7. *Abbreviations*

- 1.7.1 Low Back pain: LBP
- 1.7.2 Disability Adjusted Life Years: DALY's
- 1.7.3 YLD: Years Lived with Disability
- 1.7.4 STarT: Subgroups for Targeted Treatment (Hill et al., 2008)
- 1.7.5 STarT-A: The Afrikaans version of the STarT Back Tool
- 1.7.6 WHO: World Health Organisation
- 1.7.7 UK: United Kingdom

1.8. *Thesis*

The Afrikaans translated and culturally adapted version of the STarT back tool.

1.9. *Delineation*

This research study aims to successfully translate and culturally adapt the English original STarT back tool into an Afrikaans version of the STarT back tool. The scope of this thesis is the translation and cultural adaptation of the standard dialect Afrikaans version of the STarT back tool. The scope of this study will not include other dialects of Afrikaans at this stage. The scope of this study does not include the psychometric testing of the newly translated version of the STarT back tool.

1.10. *Research Question*

Can the English original STarT Back Tool be linguistically translated and culturally adapted into an Afrikaans version of the STarT Back Tool?

CHAPTER 2

2. Literature review

2.1. *Chapter outline*

This chapter discusses the following:

- Introduce the relevant literature
- Introduce the Reader to LBP
- Outline the epidemiology and prevalence of LBP
- Explore LBP management and clinical guidelines
- Analyse the disabling effect of Lower Back Pain
- Review Stratified Care for optimal outcome
- Consider the Keele STarT Back screening tool
- Discuss the need to translate and adapt the STarT Back Tool
- Review the translation and cultural adaptation process
- Explore translating into the Afrikaans language
- Conclude all the relevant information in the Chapter Conclusion

2.2. *Introduction*

This literature review will cover the key components of the thesis named “The Afrikaans translated and culturally adapted version of the STarT back tool”. The purpose of the literature review is to expand on what low back pain is, the aetiology of low back pain and the debilitating effects of low back pain. Various key concepts will be discussed, including the concept of stratified health care, how the STarT back tool has been developed as a stratification tool for the use in low back pain. Finally it will be discussed how the translation and cultural adaptation process is implemented, and the challenges faced when translating a health questionnaire into Afrikaans.

2.3. Lower Back Pain

Low back pain (LBP) can be defined as “pain limited to the region between the lower margins of the 12th rib and the gluteal folds” (Galukande, Muwazi, & Mugisa, 2005). Other definitions may include pain in the lumbar area, discomfort in the lower part of your back as well as descriptions of a condition of pain, achiness, stiffness or fatigue around the lumbar sacral region of the spine (Louw et al., 2007). Diagnosing LBP is an intricate process made up of a thorough subjective examination and history taking of the patient, a detailed objective assessment of the patient and the referral for simple and or specialized investigations to come to a preliminary diagnosis (Galukande et al., 2005). Diagnostic terms aim to group patients into categories or classifications, attempting to attribute the cause of systems to a problematic source. LBP is, however, notoriously difficult to classify. Galukande et al. (2005) suggest a simple three way classification system, simple back pain, nerve root compression and serious spinal pathology. When a recognised cause for LBP cannot be found, it is classified as mechanical back pain, simple back pain or non-specific lower back pain (Galukande et al., 2005). A study by Galukande et al. 2005 classified a group of LBP sufferers into 62.3% as simple or non-specific low back pain group; 19.1% as nerve root compression and 17.1% as serious spinal pathology. The severity of LBP can also be classified into four levels being: severe acute low back pain without leg pain, severe acute low back pain with leg pain, severe chronic low back pain without leg pain and severe chronic low back pain with leg pain (Hoy et al. 2014). This method is used in systematic reviews and each level is given a weighted component. This data is then used to determine overall disability of LBP expressed as years lived with disability (YLDs). There is no possible mortality from LBP, and thus YLD's are then represented as disability-adjusted life years (DALYs). LBP affects the individual, families and society as a whole (Williams et al., 2015).

2.4. Epidemiology and Prevalence of LBP

LBP in an African context has historically been poorly reported on, as most healthcare research in Africa was focused on communicable diseases (Louw et al., 2007). More recently there has been an influx of research published on this subject in Africa. The prevalence of LBP experienced amongst Africans is now known to be similar to that of developed countries (Louw et al., 2007). A recent systematic review of the global prevalence of LBP pain reported that LBP is most prevalent amongst females and people between 40-80 years of age (Damian Hoy et al., 2012). This systematic review reported the mean global prevalence of LBP pain lasting more than a day

is 11.9% and a mean global prevalence of LBP lasting more than a month is 23.2% . Another study reported that the mean prevalence of LBP amongst African adolescents was 12 %, and 32 % amongst African adults, which was similar to statistics reported among western societies (Louw et al., 2007).

A recent study on the Risk Factors and Disability Associated with Low Back Pain in Older Adults in Low- and Middle-Income Countries, looked a bit closer at a more recent South African picture of LBP in older adults(Williams et al., 2015). This study concluded that the past month LBP prevalence in South Africa for patients 60 and older was 39%, and that the prevalence of LBP increased with age. The study also reported that females were also more likely to experience LBP compared to males, however the exact scientific explanation for this phenomenon could only be speculated at this point in time.

2.5. *LBP Management and Clinical Guidelines*

Health professionals are trained to manage and treat LBP in many ways, depending what they find on their clinical assessments and history taking. Internationally there has been LBP guidelines issued since 1994 (Koes, van Tulder, Ostelo, Kim Burton, & Waddell, 2001). Clinical practice guidelines for managing acute LBP vary, but most agree on a combination of pharmacological management interventions (paracetamol, non-steroidal anti-inflammatory drugs, muscle relaxants, weak opioids and topical pharmacological treatments), application of modalities such as spinal manipulation and heat therapy, the use of reassurance, advice to remain active and education on LBP (Balagué, Mannion, Pellisé, & Cedraschi, 2012). When international clinical guidelines for LBP are compared, the diagnostic and therapeutic recommendations are generally similar (Koes et al., 2010). It is important to note that symptoms of acute LBP may improve with or without any treatment (Balagué et al., 2012). Clinical Practice guidelines for managing chronic LBP include educational aspects about LBP, advice to remain active, pharmacological interventions (Non-steroidal anti-inflammatory drugs and weak opioids), spinal manipulation and any kind of exercise therapy (Balagué et al., 2012).

2.6. *LBP and Disability*

Disability can be defined as an umbrella term for impairments, activity limitations, and participation restrictions (WHO 2011). Disability refers to the negative aspects of the interaction between individuals with a health condition (such as cerebral palsy, Down syndrome, depression) and personal and environmental factors (such as negative attitudes, inaccessible transportation and public buildings, and limited social supports). These definitions often stress moderate to severe health loss and the role of the environment in the loss of individuals' wellbeing.

The LBP disability in an African population is difficult to determine due to insufficient data available from good methodological studies before the year 2000 (Louw et al., 2007). From the available data it appears that the one year LBP prevalence is slightly higher amongst Africans (14-72%) compared to western societies (20-62%). The lifetime prevalence of experiencing LBP is estimated to range between 28-74% for Africans compared to 30-80% for western societies (Louw et al., 2007). In South Africa, over a 20-year period, LBP rose from being the 15th highest contributor to Disability-adjusted life years (DALYs) to the 11th highest contributor in 2010 (Hoy et al., 2014).

Debilitating effects of LBP may be grouped as those that affect one's work, those that limit a person's functionality and those that are directly related to experiencing pain (Melloh et al., 2009). Physical activity limitations or activity of daily living limitations and depression can be classified under any of the three mentioned classifications. Fear avoidance beliefs and social and emotional support limitations fall specifically under work status and functional limitations. Fearing that a movement or activity involved with one's work would cause hurt or damage and the perception of being unable to continue working falls under predictors that affect one's work (Melloh et al., 2009). A review of payroll records of a number of large organisations showed that in 2013, 7% of the total incidents of absenteeism in South Africa were attributed to back pain and back symptom complaints, and that this is the second most common reason for sick leave (Jones, n.d.)

The likelihood for an acute episode of LBP to progress into a chronic episode of LBP has been well recognised in recent literature. Psychological and occupational factors have been identified as the most important prognostic factors to determining whether acute LBP will become chronic LBP (Melloh et al., 2009). The psychological and occupational factors may include personal

stress, low workplace support, shorter job tenure, previous episodes of low back pain, an inability to modify one's work duty and extreme symptom report (Melloh et al., 2009). In another study by Grotle et al. 2007 looked at the clinical course of pain and disability of 123 patients who had acute LBP for less than 3 weeks, and it was found that patients with higher levels of psychological factors, especially emotional distress, had an increased risk for chronic pain and disability. It is therefore essential that these factors are explored in screening instruments by clinicians, and that the planning of a management strategy incorporates these factors (Melloh et al., 2009).

2.7. *Stratified Care for Optimal Outcome*

Stratified care involves targeting treatment, to patient subgroups, based on key characteristics such as their prognostic profile, likely response to specific treatment and suspected underlying causal mechanisms (Foster, Hill, Sullivan, & Hancock, 2013). There are three main models of stratified health care, and there is a definite overlap between the 3 models (Foster et al., 2014). These models are firstly based on risk, secondly based on mechanisms responsible and lastly based on treatment responsiveness. All three approaches have been shown to be beneficial to managing patients with low back pain in the clinical setting (Foster et al. 2013), but it is unclear whether any one approach is superior over another. One concern is the fact that the application of a specific stratification model requires additional training and skill development to be able to apply it (Foster et al., 2014). However it has been found that a stratified management approach incorporating a combination of prognostic screening and targeted treatment was superior to non-stratified care practice (Hill et al., 2011). What is certain is that the chosen stratification approach must be user friendly and patient orientated.

Ideally every patient suffering from low back pain should get the right diagnosis the first time around, and start the correct treatment regime soon after (Hill et al., 2008) This should be based on their specific needs, thereby resulting in a quick recovery. Low back pain can be a costly affair for some patients, especially when their management approach is based on the clinician's intuition alone and not solid science (Hill et al., 2011). Stratified care, based on prognostic factors, the patients predicted response to treatment and the underlying mechanism responsible for causing the low back pain, for patients suffering with low back pain aims to match a specific treatment regime to a specific patient presentation. (Foster et al., 2013).

The aim of stratified care should be to maximise the treatment benefit for the patient, reduce harm and to increase health care efficiency by ensuring that the right patient gets the right treatment at

the right time (Foster et al., 2014). The Keele STarT Back screening tool is an example of a stratified care approach specifically designed to assist clinicians treating low back pain.

2.8. *Keele STarT Back Screening Tool*

There was a need to develop a LBP screening tool to identify prognostic factors relevant to a clinician's decision making concerning initial management (Hill et al., 2008). It was essential that this tool would be brief and quick to score, with the aim of improving clinical outcomes, when subgrouping was used to guide treatment (Hill et al., 2008). The research team initially identified the most important prognostic factors linked to persistent low back pain and disability. There were three consecutive steps in the development and validation of the Keele University's Subgroups for Targeted Treatments (STarT) Back Screening Tool. These are 1) the selection of items for inclusion, 2) the validation of their psychometric properties and identification of cut off scores for subgroup allocation, and 3) independent external validation (Hill et al., 2008). The result was the development of a nine point questionnaire screening tool that is quick and easy to use (Hill et al., 2008). This tool includes the following nine items: referred leg pain, comorbid pain, disability (2 items), bothersomeness, catastrophizing, fear, anxiety, and depression. The last five items aim to assess the patient on a psychosocial subscale (Hill et al., 2008).

This questionnaire is given to patients to fill in before they start their consultation with the clinician. The patient is asked to think about the last two weeks when filling in the questionnaire. They are given nine statements to read, and then asked to state whether they agree or disagree with each of the nine statements. One point is scored for every 'agree' statement and zero for every 'disagree' statement. The total score out of a possible nine points is calculated, and the score is matched to one of three risk categories. These are the low risk group for scores 0-3, moderate risk groups for scores 4-6 and a high risk group for scores of 6-9. Each risk group would then have a specific matched treatment allocated to that specific risk group (Hill et al., 2008). These matched treatments were developed through in-depth research of available evidence and understanding of each group's characteristics (Hill et al., 2008)

The low risk group is matched with a treatment regime made up of assessment procedures, reassurance, pharmacological advice, advice on self-management and education of their symptoms, along with cautioning them to avoid seeking over treatment and investigations (Hill et al., 2008). Patients whose score falls in the medium risk category, have a matched treatment regime that consists of evidence based conservative treatments offered by physiotherapists which

should include manual therapy and exercise therapy (Hill et al., 2008). The high risk group has been matched to psychologically informed physiotherapy. The high risk management regimes combine physical and psychological treatment approaches (Foster et al., 2014).

The STarT Back Tool demonstrated good reliability and validity during this initial research period and was published in 2007 (Hill et al., 2008). Since then, the STarT Back Tools ability to match risk groups to specific treatment strategies has been proven to be both clinically effective as well as cost effective (Hill et al. 2011). The Start Back approach was taken a step further when it was applied into a Primary care setting in the UK. A randomised control trial, the IMPaCT study, showed that stratified care lead to a significant reduction in patient disability. It also halved the time taken off work by patients without having any additional increase in health costs (Foster et al. 2014).

2.9. The Need to Translate and Adapt the STarT Back Tool

A recent systematic review by Louw et al., (2007) revealed that using questionnaires for research purposes may have limitations due to the fact that these questionnaires are often culturally insensitive and inappropriate. The result is that the participants simply do not complete the questionnaires. "The term "cross-cultural adaptation" is used to encompass a process which looks at both language (translation) and cultural adaptation issues in the process of preparing a questionnaire for use in another setting" (Beaton et al., 2007). One might argue that a questionnaire must simply just be translated into the new required language, but the truth is an unique methodology should be followed if the target translation is to be equivalent to the source questionnaire (Beaton et al., 2007). When a translation is to be done into a new language encompassing a new culture, the target translation should aim to not only be linguistically correct but also culturally adapted, maintaining its content validity with the original questionnaire (Beaton et al., 2007).

2.10. Translation and Cultural Adaptation

The STarT Back tool was originally designed for use in a primary care setting in the UK, and as such was written in English (Hill et al., 2008). It has subsequently been formally and informally

translated and culturally adapted into nearly 20 languages for use all over the world (Bruyère et al., 2014), all using the method outlined by Beaton et al. 2007 as recommended by the developers of the STarT Back Tool. Validated translations of the STarT Back Tool have been published including a Danish version (Morsø, Albert, Kent, Manniche, & Hill, 2011), a French version (Bruyère et al., 2014), a Brazillinn version (Pilz et al., 2014), and a recent Finnish (Piironen, Paananen, Haapea, & Hupli, 2015) to mention a few. There is currently no Afrikaans translation of the STarT Back Tool available.

The step by step methodological process outlined by Beaton et al. (2007) can be outlined as the following 6 stage process :

Stage 1: Translation

Stage 2: Synthesis

Stage 3: Back Translation

Stage 4: Expert Committee Review

Stage 5: Pre-Testing

Stage 6: Final Stage

This six stage process will be discussed in detail in chapter 3.

2.11. Translating into the Afrikaans Language

As mentioned before, Afrikaans is the third most spoken first language in South Africa (Statistics South Africa, 2012). It must however be noted that as with most other languages, different dialects exist of the same language, and these are usually related to the geographical placement of a population (Morris, Grimmer-Somers, Louw, & Sullivan, 2012). Morris et al (2012) translated and culturally adapted the Pain Catastrophizing Scale (PCS) into Afrikaans, and noted as a limitation to their study that produced validated version of the PCS was only validated in an Afrikaans population in the Western Cape area of South Africa, due to the vast differences in cultures between provinces in South Africa. One cannot simply assume that the same results will be reproducible in an Afrikaans population in an different area in South Africa (Beaton et al., 2007), (Louw et al., 2007), (Morris et al., 2012). The Western Cape was chosen as an ideal location for a general dialect sample of the Afrikaans spoken by the majority of Afrikaans speaking patients in South Africa.

2.12. Chapter Conclusions

Research in the field of LBP is still lacking, especially in South Africa. From what we know it is clear that LBP is going to have a wider impact on everyone in the future, and patients will be burdened more and more with pain and disability if there is no change in current projections. Stratification programmes such as the STarT Back Tool may be a way to assist society to manage their LBP and to predict which patients may be at risk of long term disability. These high risk patients may have a better outcome if they receive the correct treatment from the onset of the LBP. An Afrikaans version of the STarT Back Tool is needed to cater for the scope of Afrikaans speaking LBP patients seeking medical advice for their LBP.

CHAPTER 3

3. Methodology

3.1. *Chapter outline*

This chapter discusses the following

- Introduce the reader to the Methodology
- State the Research Design
- State the Research Setting
- State the Study Population and Sampling
- State the Research Instruments
- Explain the Research procedure
- State the Method used for Analysis of Data
- State the Ethical Considerations
- State the Projected Budget

3.2. *Introduction*

The developers of the original STarT Back Tool were contacted and granted permission for the translation and cultural adaptation of the Afrikaans version of the STarT Back Tool to commence. The process was commenced using the methods outlined by Beaton et al. 2007 at the request of the developers of the original version as mentioned in chapter 2. This method can be outlined as the following 6 stage process that was used with regards to producing the Afrikaans version of the STarT Back Tool:

Stage 1: Translation

- Two translations were done into Afrikaans (both translators were be first language Afrikaans speakers)
- Translator 1: Was an informed translator, trained to understand medical terms.
- Translator 2: Was an untrained translator, untrained to understand medical terms.

The aim of this stage was to produce the first two versions of the target translation of the STarT Back Tool.

Stage 2: Synthesis

- The two translated versions were combined into one translated version, then the discrepancies were resolved. Any difficulties translators had with the initial translation were taken into account and discussed.

The aim of this stage was to merge 2 possible versions of the target language of the STarT Back Tool into one single version.

Stage 3: Back Translation Phase

- Two English first language speakers, who could read and understand Afrikaans well, naïve to the outcome measure tested, were then asked to translate the synthesised version (step 2) back into their own separate English versions.

The Aim of this stage was to determine if the original version was translated correctly to the target version.

Stage 4: Translation Committee Review

- All previous translations were reviewed by a committee made up of all the relevant role players involved in the different stages of translations.
- A professional language translator checked the work that was been done.
- This involved the tool developer.
- Consensus was reached on discrepancies
- A pre-final version is produced.

The aim here was to look at all the data captured so far, and this stage was used to compare words and phrases with each other that was similar. The linguistic accuracy was discussed during this stage, to determine the most appropriate words or phrases that would make up the pilot version of the Afrikaans StarT Back Tool.

Stage 5: Pre-Testing

- The questionnaire was given to 15 first language Afrikaans speaking patients presenting with current LBP, booked on two random consecutive days of the week for physiotherapy treatment to complete and answer.
- These patients were probed and questioned after the completion of the questionnaire to get an understanding of how well the new version works.

The aim of this stage was to determine the construct validity of the pilot version of the Afrikaans STarT Back Tool, and to take into account the difficulties that patients experienced when they filled in the questionnaires.

Stage 6: Final Stage

- Final review and submission of reports was done of all data captured during the previous six stages. All recommendations were taken into account, and a final version of the STarT Back Tool Afrikaans version (STarT-A) was developed.

3.3. *Research Setting*

The research was conducted in six distinct phases.

- Phase 1 and 3 were conducted by each translator at a venue of his or her choice.
- Phase 2, 4 and 6 was conducted using an online meeting format.
- Phase 5 took place at an independent physiotherapy outpatient settings in the Western Cape. Participants with booked physiotherapy appointments on two random consecutive days of the week, complaining of current LBP, were approached and recruited for the study.

3.4. *Research Design*

A non-experimental qualitative design was chosen for this research, as the components of the study involved cross cultural adaptation, translation and content and construct validation of a screening tool.

3.5. *Study Population and Sampling*

After the translation and cultural adaptation process was completed, the new Afrikaans version of the STarT Back Tool underwent a pilot testing phase. The study population and sampling used was identical to the original study protocol outlined by Hay et al., (2008). The study population include male and female patients, between the ages of 18-65 years of age seeking physiotherapy for low back pain with or without leg pain. Participants must be able to read, speak and understand the Afrikaans language, and must give their written consent to participate in the study.

Exclusion criteria for participants were:

- Potential serious pathology (e.g. cauda equine compression, inflammatory arthritis, malignancy etc.).
- Serious comorbidity
- Psychiatric illness or personality disorder
- Spinal surgery in the last 6 months
- Pregnancy
- Already receiving treatment other than physiotherapy treatment for this episode of back pain
- An inability to follow up on further physiotherapy treatments.

3.6. *Research Instruments Used*

The following research instruments were used for the translation and cross cultural adaptation phase: Stage 1-4.

- Translation form (Beaton et al., 2007)
- Synthesis of translated versions form (Beaton et al., 2007)
- Back translation form (Beaton et al., 2007).
- Expert committee report (Beaton et al., 2007).
- Pre-test report (Beaton et al., 2007).

The following research instruments were used during the pilot testing phase: Stage 5.

- Afrikaans version of STarT Back Tool (product of stage 1-4)
- Field testing report (informal questioning)

3.7. Procedure

The exact procedure used has been outlined by Beaton et al. 2007 as follows:

Stage 1: Two Independent Translations are to be Produced.

Two translators were commissioned to translate the English version of the start back tool independently. Translator 1 had clinical knowledge on low back pain, and translator 2 did not have any clinical knowledge of low back pain. The original English version of the STarT Back tool was electronically sent to each translator along with the translation forms and the translation report form. They were given 10 days to complete this process. They were required to return their independent versions electronically, along with the completed report including comments on their difficulties and challenges during the translation process.

Stage 2: Synthesis of Translations.

Translator 1 and 2 met, together with a third unbiased person, who served as a mediator in discussions of translation differences. This third person had access to the original version as well as both translated versions of the STarT Back Tool from translator 1 and 2. Together the mediator and translators produced a synthesized version of the translation, resulting in one common translation. All issues were resolved by consensus. The mediator produced a written report documenting the synthesized process and how each issue was resolved, and the resulting document.

Stage 3: Back Translation.

The final synthesized version resulting at the end of stage 2 was translated back into its original language of English. Two bilingual persons, whose first language is English was commissioned to back-translate the synthesized version of the STarT Back Tool. These two translators should not have a medical background, or a clinical knowledge of LBP. They each received the synthesized version electronically, and were given 10 days to translate the Start Back Tool back in English. Their independent versions were returned electronically, together with the completed report including their comments on their difficulties and challenges experienced during the translation process.

Stage 4: Translation Committee.

An expert committee was formed that included all four translators, the developer, a health professional and a language professional. This committee reviewed all translations, then consolidated all the versions and components that were translated, and took into account written

reports and the original source version of the STarT Back Tool. The committee then finalised the translated instrument. The main aim here was to achieve equivalence between the source version and the target version of the STarT Back Tool.

Stage 5: Test of the Pre-final Version.

The final version of the STarT Back Tool produced in stage 4 was be used in the pilot testing stage . Fifteen patients from the target setting were recruited for the study and were asked to first read the information documentation provided (Appendix 8.1), then ask any questions if the had, and lastly to sign informed consent (Appendix 8.2) to the study if the were willing to participate. Patients were told that they were able to withdraw from the study at any point. Patients were asked to first complete the questionnaire, and thereafter they were interviewed to probe what they thought was meant by each questionnaire item, and their response was noted and documented.

Stage 6: Final Stage.

All the questionnaires used in stage 5 were reviewed together with the researcher's report of the participants' comments as well as all previous data collected during the previous 4 stages. Any ambiguities were discussed, and final changes were made ias required.

3.8. *Analysis of Data*

After completion of stage 5 the data was collected and analysed by the research committee, the changes and recommendations were implemented. The final version of the Afrikaans STarT Back Tool (STarT-A) wast finalised (Appendix 8.9).

3.9. *Ethical Considerations*

Authorisation for translating and culturally adapting the STarT Back Tool was received from the original author of the English version, Dr. Jonathan Hill, Keele University, United Kingdom. Ethical clearance to conduct the study was obtained from the Humanities and Social Sciences Research Ethics Committee on 10 February 2015, and granted on the 3rd of May 2016 with the registration number HSS/0171/016M. The relevant participating physiotherapy private practice was approached and informed of the study, and agreed to participate. The practice owner was

asked to sign an informed consent form to state their involvement. Informed consent was gained from all participants in the study. They could drop out of the study at any given time without any explanation or consequences. Personal details of participants will be kept confidential by the researcher and the completed questionnaires will be kept safe in a locked filing cabinet, as medical records, for five years and then destroyed. Electronic data will be password protected, and thereafter deleted. After the final version translated version of the STarT back Tool has been produced, it will be copyright-protected by Keele University, United Kingdom. It will however be made freely available for use by in the clinical setting.

3.10. Project Budget

- Traveling R5 000
- Printing R8 000
- Professional Translation fees R1 000
- Storage devices R1 000
- Miscellaneous R5 000

CHAPTER 4

4. Results

4.1. *Chapter outline*

This chapter presents the following:

- The results of Stage One to Four of the Six Stage Translation and Cultural Adaptation Process.
- The Results of the Pilot Testing (stage 5) of the Afrikaans Version of the STarT Back Tool.
- The Results of the Post Questionnaire Interview of the STarT Back Tool.
- The Recommendations Made by the Participants in the Pilot test.
- The Final Adaptations Made (stage 6).The Acceptance of a Final Afrikaans version of the STarT Back Tool.

4.2. *The Results of Stage One to Four of the Six Stage Translation and Cultural Adaptation Process.*

4.2.1. *Forward Translation*

Stage 1 of the translation process was commenced by commissioning two independent translators (translators 1 and 2) to each produce an Afrikaans translation of the original STarT Back Tool.

Each translator reported that most of the statements were easy to translate and that they were able to complete the translation of all items fully. Each translator completed their translation (Appendix 8.4.7 a & b) within the allocated time frame given. This concluded Stage 1 of the translation. The two translations were then sent to a professional translator.

4.2.2. *Synthesis of Initial Translation*

A professional translator (Translator 3) processed both initial translations (T1 and T2) and synthesised a combined version (T12) within her given timeframe. She also justified her specific

choice and recommendations when it came to synthesising the combined versions of T1 and T2 and submitted a detailed report on her thought processes during the synthesis of T12.

The outcome of this stage and the professional translator's report and personal comments are summarised in Table 4.1.

Table 4.1: Report of discrepancies and their resolution	
Issue: (specify ten # and describe issue/ professional translators comments)	Resolution (professional translators comments)
Issue 1: Translator #2 generally translated less literally and more freely, e.g. “thinking about the last 2 weeks” was translated not as a request but rather as a demand (“dink”). Also, “maak ‘n merkie” is more freely translated than Translator #1’s version, which adheres more closely to the original.	I kept more or less to Translator #1’s version, but used “terwyl” instead of “as”, because in the context it made more sense, since a request follows in the second half of the sentence. I added “asseblief” to the synthesis, because I believe in Afrikaans in this context this is an appropriate way of addressing participants.
Issue 2: Translator #1 added the word “toepaslik” to the translation, which was not in the original source text.	I tried to leave out words which were not in the source text.
Issue 3: I kept more or less to Translator #1’s version, but changed the “verwys”, because in Afrikaans that is more technical language and normally people without medical training would use more plain language. Translator #2 added “agtergekom” to the sentence, and that was not mentioned in the original source text.	I tried to use plain language, as prescribed in the official language policy in South Africa, and to keep to the original sense of the source text as much as possible, without adding my own interpretation or meanings.
Issue 4: Here, I used Translator #1’s sentence in its entirety, since according to me it is an accurate translation of the source text. Translator #2 wrote “skouer asook my nek”, while the source text said “shoulder or neck”.	I used Translator #1’s version in its entirety.
Issue 5: The source text uses the past tense, which was rendered in Translator #1’s version, but not in that of Translator #2.	I mainly used Translator #1’s version, but changed the order of the sentence to conform more to the source text. I also changed to “het

However, Translator #1 changed the order of the sentence.	... geloop” instead of “kon ... loop’, because that is in accordance to the source text.
Issue 6: Here, Translator #1 used the present tense whereas the source text made use of the past tense. Translator #2’s version is more true to the original, but I changed to order of the sentence to adhere more strictly to the original.	I changed the “normaal” in Translator #2’s version to “gewoonlik”, because I am of the opinion that that is better Afrikaans, but for the rest I made use of Translator #1’s first attempt, but changed the sentence into the past tense, to adhere more strictly to the source text.
Issue 7: Translator #2’s version conforms more to the source text regarding word order, but the word “really” was omitted. Also, a more “Afrikaans-oriented” translation of “condition” would be “toestand” instead of “kondisie”, and preference is usually given to Afrikaans words with Germanic forms in medical translations, rather than using the Romanic equivalents.	I combined the two versions into one by using the more Germanic form in Translator #1’s version but the sentence structure of Translator #2’s version and adding “regtig” from version 1, in order to adhere to the source text more closely.
Issue 8: Here, Translator #1 used the present tense, whereas the source text used the past tense. But the meaning of Translator #1’s translation reflects the meaning of the source text more closely than that of Translator #2’s translation. The phrase “waarskuwings ligte”, apart from the fact that this construction should be one word in Afrikaans, does not reflect the meaning of “worrying thoughts”.	I used Translator #1’s version, but changed the sentence from present tense into past tense.
Issue 9: Neither of the translations rendered the phrase “I feel”, and Translator 2 stated “ek” where the source text used “it”.	I added the phrase “ek voel”, to reflect the source text more accurately, but used the rest of Translator #1’s translation.
Issue 10: Translator #2’s translation does not adhere closely to the source text, because the word “vandat” does not coincide with the meaning of “in general”.	I used the first attempt of Translator #1, because this closely reflects the meaning of the source text.

Issue 11: The expression “overall” is not reflected in Translator #2’s version, and Translator #1 uses “in die laaste 2 weke as geheel”, which according to my opinion has a more restricting meaning than my option. Also, the construction “was ... gewees” is not correct in Afrikaans.	I opted for the expression “in die geheel genome”, because this is a suitable equivalent for “overall” and has a more general meaning than the attempt by Translator #1.
---	--

A synthesised version T12 was created, and is represented in Table 4.2.

Table 4.2 The Keele STarT Back Tool (Afrikaans version) T12			
Terwyl u aan die afgelope 2 weke terugdink, merk asseblief u antwoorde op die volgende vrae:		Stem NIE Saam	Stem Saam
1.	My rugpyn het iewers in die afgelope 2 weke langs my bene af versprei		
2.	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad		
3.	Ek het net kort afstande geloop as gevolg van my rugpyn		
4.	In die afgelope 2 weke het ek stadiger as gewoonlik aangetrek as gevolg van rugpyn		
5.	Dit is nie regtig veilig vir iemand met ‘n toestand soos myne om fisies aktief te wees nie		
6.	Kommerwekkende gedagtes het gereeld deur my gedagtes gegaan		
7.	Ek voel my rugpyn is verskriklik en dat dit nooit enigsins beter gaan word nie		
8.	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie		

9. In die geheel genome, hoe lastig was u rugpyn die afgelope 2 weke?

Glad Nie	‘n Bietjie	Meer as gewoonlik	Baie	Versriklik Baie

4.2.3. Back Translation

The Synthesised Afrikaans version was sent to Translator 4 and Translator 5, both fluent in Afrikaans and English. They each produced independent back translation (Appendix 8.4.9) within the given time frame.

4.2.4. Synthesis of the Pilot Version

The committee making up all the previous translators plus the developer felt that the content and context of the back translation into English made by Translators 4 and 5 were close to the original English version, even though they were not matched in sentence word for word. Two words were predicted to be problematic. They were the word “kommerwekkende” in item 6 and the word “genome” in item 9. The word “kommerwekkende” was however accepted into the pilot version, as it was the closest translation to the word “worrying thoughts” in the source text. The phrase “geheel genome” was kept due to the fact that the word could not be effectively translated by Translator 1 and Translator 2 during stage 1. The professional translator felt that neither of the original translations of this word was found to be adequate as it did not reflect the general meaning of “overall”, as Translator 1 and Translator 2’s version were found to be too restrictive. The committee decided the final version would be identical to the synthesized T12 version, and that version was appropriate to be tested on a patient population.

4.2.5. Conclusion of Stages 1 to 4

The translation process as set out by Beaton et al. (2007) proved highly effective and the outcome was indeed a seemingly translated and culturally adapted Afrikaans version of the STarT Back tool. The combination of a professional translator with the 4 individual translators proved essential to culturally and linguistically translating each item of the questionnaire. Interestingly enough the word “bothersome” did not come up as a problematic word, as was found in multiple of the other STarT Back Tool translations that have previously been done. The pre-final version of the Afrikaans version of the STarT Back tool was thus ready to be tested on a target population during the pilot testing component of translation and cultural adaptation

4.3. The Results of the Pilot Testing of the Afrikaans Version of the STarT Back Tool

4.3.1. Testing of Pilot Version Introduction

The pilot version was tested on 15 Afrikaans speaking lower back pain patients who resided in the Western Cape at the time of the study. After the completion of the questionnaire, participants were interviewed about the language content of the questionnaire and the contextual meaning of the questionnaire.

4.3.2. Results of Pilot Testing

4.3.2.1. Demographics of Participants

<i>Table 4.3.2.1a Participant demographics</i>	
Characteristics	Patients (n=15)
Age (years) Mean (SD)	54 (SD)
Range	35-75
Gender (male/female)	6/9
Race	15/15 Whites

<i>Table 4.3.2.1.b Level of Education</i>		
Highest Education Level	Number of Participants	Percentage of Field
Completed Grade 10	0	0%
Completed Grade 12	1	6,7%
Completed Tertiary Diploma	2	13,3 %
Completed Undergraduate Degree	5	33,3%
Completed Honours Degree	3	20%
Completed Masters Degree	0	0%
Completed Phd	3	20%
Other	1 (N3)	6,6 %

As seen in Table 4.3.2.1b above, all of the participants completed Grade 12 or equivalent, and the majority of the participants had a Honours degree or higher education level with 73,3% having an education level of a University undergraduate degree or higher.

4.3.2.2. STarT Back Tool Scoring Analysis and Risk Stratification

Table 4.3.2.2 Start Back Tool Scoring Analysis			
	Low Risk (Score 1-3)	Medium Risk (Score 4-6)	High Risk (Score 7-9)
Male	4/6	1/6	1/6
Female	6/9	3/9	0/9
Percentage of Filed	66,7%	26,7%	6,6%

As seen in Table 4.3.2.2, all participants completed the questionnaire in full. The majority of the group (66,7 %) scored between 1-3 and presented as “low risk” patients using the Afrikaans version of the STarT Back Tool. 26,6 % of the participants scored between 4-6 and were classified in the “medium risk” group. One male patient scored between 7-9 and was classified in the “high risk” group.

4.4. The Results of the Post Questionnaire Interview of the STarT Back Tool

4.4.1. Language analysis with participants

Participants were asked to relook at each sentence and probe the language content of each sentence of the questionnaire (Appendix 8.4.6). They were then asked to outline words or phrases that they found difficult to understand.

4.5. Recommendations made by the pilot testing participants

4.5.1. Participants recommendations

The general language content was well received by the study participants. Two recommendations were made in total. There were only 2 issues picked up with the pilot testing group. The first issue was the word “kommerwekkende” in item 6. A total of 20 % of the pilot testing group found this word difficult to understand, and the general consensus was that this word had quite an outdated meaning. Recommendations were made to replace this word with the word “bekommer” and that that entire sentence might need to be rephrased. The second item was the word “genome”, used in the sentence “in die geheel genome”. This word was also found to be outdated by 47% of the pilot testing group. This word was unanimously replaced with “algemeen”, to be used as “in die algemeen”.

All the other phrases we found to be easy to understand and to interpret by all the participants.

The results of the language probing can be seen in Table 4.5.1

Table 4.5.1 The Keele STarT Back Tool (Afrikaans version)					
Item/sentence			Number of participants that had an issue with this item	The words and or phrases that were found to be problematic and their recommendations	
Terwyl u aan die afgelope 2 weke terugdink, merk asseblief u antwoorde op die volgende vrae:		Stem NIE Saam	Stem Saam	0	N/A
1.	My rugpyn het iewers in die afgelope 2 weke langs my bene af versprei			0	N/A
2.	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad			0	N/A
3.	Ek het net kort afstande geloop as gevolg van my rugpyn			0	N/A
4.	In die afgelope 2 weke het ek stadiger as gewoonlik aangetrek as gevolg van rugpyn			0	N/A
5.	Dit is nie regtig veilig vir iemand met 'n toestand soos myne om fisies aktief te wees nie			0	N/A
6.	Kommerwekkende gedagtes het gereeld deur my gedagtes gegaan			3	Kommerwekkende =bekommer

					(possible sentence restructure)
7.	Ek voel my rugpyn is verskriklik en dat dit nooit enigsins beter gaan word nie			0	N/A
8.	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie			0	N/A
9.	In die geheel genome, hoe lastig was u rugpyn die afgelope 2 weke?	Glad Nie/'n Bietjie/Meer as gewoonlik/Baie/Verskriklik Baie		7	Geheel genome=algemeen

4.5.2. Details of groups that recommended changes in a specific item.

The language recommendations were made by mostly by the female participants, and the combined average age of the 2 groups were slightly younger than the average age of the entire pilot testing group of participants.

The details of these recommendation groups is shown in Table 4.5.2

Table 4.5.2 Recommendation of changes			
Item	% of population that recommended this	Mean Age of this group	Gender split(male/female)
6	20%	48	1/2
9	47%	51	2/5

4.5.3. Content analysis with participants

All participants in the pilot study were asked what they thought the purpose of the questionnaire was. The responses to this question were generally quite positive, as most participants were able to correctly state that the purpose of the questionnaire was to determine “how bad their back pain was”. Of the entire participant group, 6 participants were able to accurately divide the purpose of the questionnaire into 3 distinct parts being 1) How people experience their pain and how bad your pain is , 2) the psychological influences and effects pain has on a person and lastly 3) the

impact pain can have on a person's life. All patients were of the opinion that the questionnaire was trying to establish how serious their lower back was at that time.

4.6. The final adaptations made and the acceptance of a final Afrikaans version of the STarT Back Tool

4.6.1. General acceptance of final version

The questionnaire was generally very well received, and out of all the 9 items in question only 2 items had to be slightly adjusted.

4.6.2. Recommended adaptations

The 2 respective recommendations of Item 6 and Item 9 of the pilot study were presented to the translation committee for discussion

4.6.3. Translation Task Team Consensus on Changes

The committee took into consideration the recommendations made during the pilot testing stage.

In item 6, the sentence had to be restructured slightly to accommodate the use of “bekommerde” that replaced the word “kommerwekkende”. It was suggested to then also replace the phrase “going through my mind a lot of the time” with “het deur my kop gegaan die laaste tyd” The accepted item would read as “Bekommerde gedagtes het deur my kop gegaan die laaste tyd”

In item 9 the word “geheel genome” was replaced by “algemeen”.

A comparison of the old and new versions can be seen in Table 4.6.3

Table 4.6.3 Comparison of Old and New Version		
Item	Old version	New accepted version
6	Kommerwekkende gedagtes het gereeld deur my gedagtes gegaan	Bekkomerde gedagtes het deur my kop gegaan die laaste tyd.
9	In die geheel genome, hoe lastig was u rugpyn die afgelope 2 weke?	In die algemeen, hoe lastig was u rugpyn die afgelope 2 weke?

4.6.4. Acceptance of final version

The Translation committee accepted all recommendations and applied the necessary changes to the 9 items. The final Version can be seen in Table 4.6.4

Table 4.6.4 The Keele STarT Back Tool (Afrikaans version)			
Terwyl u aan die afgelope 2 weke terugdink, merk asseblief u antwoorde op die volgende vrae:		Stem NIE Saam	Stem Saam
1.	My rugpyn het iewers in die afgelope 2 weke langs my bene af versprei		
2.	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad		
3.	Ek het net kort afstande geloop as gevolg van my rugpyn		
4.	In die afgelope 2 weke het ek stadiger as gewoonlik aangetrek as gevolg van rugpyn		
5.	Dit is nie regtig veilig vir iemand met 'n toestand soos myne om fisies aktief te wees nie		
6.	Bekommerde gedagtes het deur my kop gegaan die laaste tyd.		
7.	Ek voel my rugpyn is verskriklik en dat dit nooit enigsins beter gaan word nie		
8.	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie		

9. In die algemeen, hoe lastig was u rugpyn die afgelope 2 weke?

Glad Nie	'n Bietjie	Meer as gewoonlik	Baie	Versriklik Baie

CHAPTER 5:

5. Discussion

5.1. *Chapter Outline*

This chapter discusses the following:

- Whether the aims of the study were achieved
- The translation and cross cultural adaptation results of the questionnaire
- Language and cultural considerations
- Contextualization of the equivalence of the translation
- The participants' outcome on the STarT Back Tool

5.2 *Aim of the Study*

The aim of the present study was to translate and cross-culturally adapt the Keele STarT Back Tool into Afrikaans for use with Afrikaans-speaking patients in South Africa. This aim was achieved.

5.3 *Translation and Cross Cultural Adaptation*

The process of translating and back translating the English version of the STarT Back Tool was carried out, strictly, in accordance with established guidelines (Beaton et al., 2000). This was done in an attempt to produce a reliable and valid Afrikaans versions of the questionnaires, and to produce a version that would show a high degree of agreement with the original English version.

The Afrikaans version of the STarT Back Tool was successfully translated like many of the other translations of the tool has, such as the Danish, Japanese and Finnish versions to name a few (Matsudaira et al., 2016; Morsø et al., 2011; Piironen et al., 2015).

The Afrikaans translation proved to be slightly more complicated than initially anticipated. This was initially not picked up during phase 1 of the translation, but was exposed when the professional translator became involved in phase 2. The main issues here were that some of the informal translators often used words that were not equivalent to the source text, and often their translation of a specific item did not conform to the original text due to it being in the incorrect tense or losing the meaning of the word or phrase. (Beaton et al., 2007; Morsø et al., 2011; Piironen et al., 2015).

5.4 Language Issues Identified

Out of all nine items, seven items were found to be completely acceptable and easy to understand by all the participants. Of the two items that were flagged to be problematic, only 20% of our study population flagged the first item (item 6) and only 47% flagged the second item (item 9). All the participants that flagged items 6 and 9, reported that they were familiar with the word, but were of the opinion that these words were outdated. The two problematic words or phrases in the source text of the STarT Back Tool were originated from the words “worrying thoughts” that was initially translated to “kommerwekkende gedagtes” (item 6), and the word “overall” (item 9) that was initially translated into “geheel genome”. Initially the hypothesis was that these participants that flagged these older problematic words would be younger in age as compared to the rest of the group, possibly accounting for the difficulty in understanding more traditional and “pure” Afrikaans. This was found to be true, but only by an average age of 6 years for item 6 and 3 years for item 9. The translation committee felt that it was difficult to make conclusions from such a small sample size, and that a larger sample size would be needed to substantiate that hypothesis. When prompted to recommend a replacement word, all the participant in this study used the word “bekommer” to replace “kommerwekkende” in item 6, and “algeheel” to replace “genome” in item 9. The translation committee unanimously agreed that these two recommendations would be used and incorporated into the final version of the newly translated tool. The words “worrying thoughts” that was eventually translated to “bekommerde gedagtes”, and the word “overall” that was translated to “in die algeheel”.

The usual words and or phrases that were problematic in some of the other translations were the words “worrying”, “overall” and “bothersome”. This was usually addressed by the researchers by modifying and or expanding the original source word. The Danish translation for instance changed the word “overall, how bothersome” to the phrase “overall, how much of an irritation” (Morsø et al., 2011). Sentence structure changes were also made in the same study to make it more appropriate for a Danish patient to understand, for example, “It’s not really safe” was restructured to “It is not safe, really”. The role of the professional translator was important in this study, as she acted as a referee between specific decisions made impacting on the translated text and the source text, whilst allowing for cultural and language differences.

The overall outcome was very positive, and during the post questionnaire discussion with participants, it was noted that participants found the questionnaire quick and easy to fill in, similar to the original English version of the STarT Back Tool, where the English version was found to be simple, quick. This resulted in a more user friendly and culturally applicable version compared to the pre-pilot testing version.

5.5 Contextual Issues raised

All participants were able to correctly identify that the applied questionnaire was aimed at assessing their lower back pain. All participants could identify most of the domains that the questionnaire was attempting to assess. Out of all the participants, 6 participants were able to 100% correctly identify the 3 domains that the STarT Back Tool is attempting to assess, namely the patients pain experience, their disability experience and psychosocial factors that influences the patients experience of their lower back pain. This was a successful outcome providing evidence of face and construct validity when compared to the original English version of the STarT Back Tool that had previously been found to be simple and quick to use and understand (Foster et al., 2013; Hill et al., 2008, 2010).

5.6 Participants Outcome on the STarT Back Tool

Establishing the actual score and deciding on a stratification process of each participants STarT Back Tool score using the pre-final version of the Afrikaans translation was not the primary aim of this research study. The information documented however was very useful.

Fifteen participants, 6 males and 9 females, with an average age of 54 years participated in the study. All participants were white, first language, Afrikaans-speaking patients seeking care for their lower back pain. The majority of the group (66,7 %) scored between 1-3 and presented as “low risk” patients when stratified using the Afrikaans pre-final version of the Start Back Tool. The remaining participants were divided into 26,6 % of the participants scoring between 4-6 and (classified in the “medium risk” group), and 6.6% of the participants(1 male patient) scoring between 7-9 and being classified in the “high risk” group.

In the low risk group, male participants matched female participants perfectly making up respectively 66.7% of each gender’s total participants numbers. In the medium risk group, females outweighed males 2 to 1 (33,3: 16,7%) with regards to their gender related risk group split. Only one male participant was stratified in the high risk group.

These results broadly state that in the pilot testing of white Afrikaans participants in the Western Cape, the pre-final version of the Afrikaans version of the Start Back Tool, stratified 15 patients to 10 low risk participants (66,7%), 4 medium risk participants (26.7%) and 1 high risk participant. (6,6 %).

The Impact study (Foster et al., 2014) concluded from their study that 56 % of participants

belonged in the low risk group, 32 % of participants belonged in the medium risk group and that 12% belonged in the high risk group., but this was based on a sample size of 922 participants.

Other STarT Back Tool translation studies showed various results with regards to risk stratifying. The French version of the STarT Back Tool had 108 participants, and produced a 2:1:1 split between low risk, medium risk and high risk, with almost 50 % (51/108) of the participants being stratified as low risk(Bruyère et al., 2014) . The Brazilian version produced similar results, low risk: 50%; medium risk: 26%; high risk: 24% (Pilz et al., 2014). The Danish study had 311 participants and presented as and 39.8% low risk, 34.0% medium risk and a 26.2% high risk split (Morsø et al., 2011).

The Finnish study on translating the STarT Back Tool showed an inconsistency with the original English version, as 26 % (30/116) scored as low risk, 58 % (58/116) presented as medium risk, and 24 % (24/116) high risk. This result was discussed as being due to the large number of females recruited for the study (70%) and their tendency to report more psychological complaints compared to men, hence making up for the larger group in the medium risk category (Piironen et al., 2015).

The Japanese study also showed an inconsistency, but had a very large sample size, in that 1557 participants were classified (77.9%) into the low-risk group, 294 (14.7%) into the medium-risk group, and 149 (7.5%) into the high-risk group (Matsudaira et al., 2016). The results of this study did however show a broad trend that the majority of patients will present with a score between 0-3 and be stratified into the low risk group using the Start Back Tool.

5.7 Chapter Conclusion

The outcome of the study was a culturally adapted and linguistically translated Afrikaans version of the STarT Back Tool. The newly translated tool remained quick and easy to complete. The incorporated recommendations made the final version more user friendly, without compromising any of the domains or constructs that this tool intends to assess.

Chapter 6

6. Conclusion

6.1. *Chapter Outline*

This chapter discusses the following:

- Conclude on the Findings of the Study.
- Discuss the Limitations of the Study.
- Make Further Clinical recommendations

6.2. *Conclusion of Findings*

The purpose of this study was to produce a translation of the STarT Back Tool on a small group of Afrikaans speaking patients. The English version of the Keele STarT Back Tool was successfully translated and partially culturally adapted into Afrikaans following the implementation of the guidelines as set out by Beaton et al., 2007. The newly developed Afrikaans version remains quick and easy to fill in by the patient without assistance. White Afrikaans speaking patients in the Western Cape presenting for medical care at a private Physiotherapy out-patient practice, with lower back pain, can now be asked to fill in the newly developed questionnaire, and thus be effectively stratified to a matched treatment pathway.

6.3. *Limitations of the Study*

The population sample was a sample of convenience where patients were recruited on two separate days at an out-patient physiotherapy practice. Unfortunately, all the study participants ended up being white patients, and no other racial groups were used in the study.

The study was only conducted at a single out-patient private practice in the Western Cape. It is difficult to make broad based conclusions from this study on all Afrikaans speaking patients across South Africa. The Psychometric properties of validity and reliability has not yet been determined in the Afrikaans version of the STarT Back Tool.

6.4. *Further recommendations*

The pilot testing stage of this questionnaire was conducted in the Western Cape using a small sample size of participants already seeking private medical care for their lower back pain. Further testing could include the use of a large sample size, participants in the government health care system of all race groups, and participants outside of the Western Cape. Further research may include better establishing the psychometric properties of the newly developed tool, by further comparing it to other outcome measures and using known established relationships between the English Start Back Tool and other similar outcome measures. These can then be used to compare the Afrikaans version of the STarT Back Tool with similar Afrikaans questionnaires. Other future research may include a review of the treatment pathways, and establish the role of other previous interventions on the scoring and stratification process using the STarT Back Tool.

CHAPTER 7

7. References

Original Articles:

- Balagué, F., Mannion, A. F., Pellisé, F., & Cedraschi, C. (2012). Non-specific low back pain, 379. [https://doi.org/10.1016/S0140-6736\(11\)60610-7](https://doi.org/10.1016/S0140-6736(11)60610-7)
- Beaton, D., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2007). Recommendations for the Cross-Cultural Adaptation of the DASH & QuickDASH Outcome Measures. *Institute for Work & Health*, 1–45. Retrieved from <http://www.dash.iwh.on.ca/system/files/X-CulturalAdaptation-2007.pdf>
- Bruyère, O., Demoulin, M., Beudart, C., Hill, J. C., Maquet, D., Genevay, S., ... Demoulin, C. (2014). Validity and Reliability of the French Version of the STarT Back Screening Tool for Patients With Low Back Pain. *Spine*, 39(2), E123-8. <https://doi.org/10.1097/BRS.0000000000000062>
- Buchbinder, R., Blyth, F. M., March, L. M., Brooks, P., Woolf, A. D., & Hoy, D. G. (2013). Best Practice & Research Clinical Rheumatology Placing the global burden of low back pain in context. *Best Practice & Research Clinical Rheumatology*, 27(5), 575–589. <https://doi.org/10.1016/j.berh.2013.10.007>
- Foster, N. E., Hill, J. C., Doyle, C., & Young, J. (2014). Effect of Stratified Care for Low Back Pain in Family Practice (IMPACT Back): A Prospective Population-Based Sequential Comparison, 102–111. <https://doi.org/10.1370/afm.1625>.INTRODUCTION
- Foster, N. E., Hill, J. C., Sullivan, P. O., & Hancock, M. (2013). Best Practice & Research Clinical Rheumatology Stratified models of care, 27, 649–661. <https://doi.org/10.1016/j.berh.2013.10.005>
- Galukande, M., Muwazi, S., & Mugisa, D. B. (2005). Aetiology of low back pain in Mulago Hospital, Uganda. *African Health Sciences*, 5(2), 164–7. <https://doi.org/10.4314/ahs.v5i2.6915>
- Grotle, M., Brox, J. I., Glomsrød, B., Lønn, J. H., & Vøllestad, N. K. (2007). Prognostic factors in first-time care seekers due to acute low back pain. *European Journal of Pain*, 11(3), 290–298. <https://doi.org/10.1016/j.ejpain.2006.03.004>
- Hill, J. C., Dunn, K. M., Lewis, M., Mullis, R., Main, C. J., Foster, N. E., ... Nadine, E. (2008). A Primary Care Back Pain Screening Tool: Identifying Patient Subgroups for Initial Treatment, 59(5), 632–641. <https://doi.org/10.1002/art.23563>

- Hill, J. C., Dunn, K. M., Main, C. J., & Hay, E. M. (2010). Subgrouping low back pain: A comparison of the STarT Back Tool with the ??rebro Musculoskeletal Pain Screening Questionnaire. *European Journal of Pain*, 14(1), 83–89. <https://doi.org/10.1016/j.ejpain.2009.01.003>
- Hill, J. C., Whitehurst, D. G., Lewis, M., Bryan, S., Dunn, K. M., Foster, N. E., ... Hay, E. M. (2011). Comparison of stratified primary care management for low back pain with current best practice (STarT Back): a randomised controlled trial. *The Lancet*, 378(9802), 1560–1571. [https://doi.org/10.1016/S0140-6736\(11\)60937-9](https://doi.org/10.1016/S0140-6736(11)60937-9)
- Hoy, D., Bain, C., Williams, G., March, L., Brooks, P., Blyth, F., ... Buchbinder, R. (2012). A Systematic Review of the Global Prevalence of Low Back Pain, 64(6), 2028–2037. <https://doi.org/10.1002/art.34347>
- Hoy, D., March, L., Brooks, P., Blyth, F., Woolf, A., Bain, C., ... Buchbinder, R. (2014). The global burden of low back pain: estimates from the Global Burden of Disease 2010 study. *Annals of the Rheumatic Diseases*, 73(6), 968–974. <https://doi.org/10.1136/annrheumdis-2013-204428>
- Koes, B. W., Tulder, M. Van, Lin, C. C., Macedo, L. G., Mcauley, J., & Maher, C. (2010). An updated overview of clinical guidelines for the management of non-specific low back pain in primary care, 2075–2094. <https://doi.org/10.1007/s00586-010-1502-y>
- Koes, B. W., van Tulder, M. W., Ostelo, R., Kim Burton, a, & Waddell, G. (2001). Clinical guidelines for the management of low back pain in primary care: an international comparison. *Spine*, 26(22), 2504. <https://doi.org/10.1097/00007632-200111150-00022>
- Louw, Q. A., Morris, L. D., & Grimmer-somers, K. (2007). The Prevalence of low back pain in Africa : a systematic review, 14, 1–14. <https://doi.org/10.1186/1471-2474-8-105>
- Matsudaira, K., Oka, H., Kikuchi, N., Haga, Y., Sawada, T., & Tanaka, S. (2016). Psychometric properties of the Japanese version of the STarT back tool in patients with low back pain. *PLoS ONE*, 11(3), 1–14. <https://doi.org/10.1371/journal.pone.0152019>
- Melloh, M., Elfering, A., Presland, C. E., & Roeder, C. (2009). Identification of prognostic factors for chronicity in patients with low back pain : a review of screening instruments, 301–313. <https://doi.org/10.1007/s00264-008-0707-8>
- Morris, L. D., Grimmer-somers, K. A., Louw, Q. A., & Sullivan, M. J. (2012). Cross-cultural adaptation and validation of the South African Pain Catastrophizing Scale (SA-PCS) among patients with fibromyalgia. *Health and Quality of Life Outcomes*, 10(1), 1. <https://doi.org/10.1186/1477-7525-10-137>
- Morsø, L., Albert, H., Kent, P., Manniche, C., & Hill, J. (2011). Translation and discriminative validation of the STarT Back Screening Tool into Danish. *European Spine Journal*, 20(12),

- 2166–2173. <https://doi.org/10.1007/s00586-011-1911-6>
- Piironen, S., Paananen, M., Haapea, M., & Hupli, M. (2015). Transcultural adaption and psychometric properties of the STarT Back Screening Tool among Finnish low back pain patients. <https://doi.org/10.1007/s00586-015-3804-6>
- Pilz, B., Vasconcelos, R., Marcondes, F., Lodovichi, S., Mello, W., & Grossi, D. (2014). The Brazilian version of STarT Back Screening Tool – translation , cross-cultural adaptation and reliability *. *Braz J Phys Ther.*, 18(Iv), 1–9. <https://doi.org/10.1590/bjpt-rbf.2014.0028>
- Spiegler, S., van der Spuy, A., & Flach, P. A. (2010). Ukwabelana - An open-source morphological Zulu corpus. *Proceedings of the 23rd International Conference on Computational Linguistics (Coling 2010)*, (August), 1020–1028. <https://doi.org/10.1109/ANZIIS.1995.705747>
- Statistics South Africa. (2012). *Census 2011 - Census in brief. World Wide Web.* <https://doi.org/ISBN 978-0-621-41388-5>
- Vos, T., Flaxman, A. D., Naghavi, M., Lozano, R., Michaud, C., Ezzati, M., ... Murray, C. J. L. (2014). Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990 – 2010 : a systematic analysis for the Global Burden of Disease Study 2010, 2163–2196. [https://doi.org/10.1016/S0140-6736\(12\)61729-2](https://doi.org/10.1016/S0140-6736(12)61729-2)
- Williams, J. S., Ng, N., Peltzer, K., Yawson, A., Biritwum, R., Maximova, T., ... Chatterji, S. (2015). Risk factors and disability associated with low back pain in older adults in low- and middle-income countries. Results from the WHO study on global AGEing and adult health (SAGE). *PLoS ONE*, 10(6). <https://doi.org/10.1371/journal.pone.0127880>

Electronic Resources:

- Johnson, J, (n.d.) Absinteeism Trends in South African Companies-the Biggest Cause of Absinteeism.
http://www.humancapitalreview.org/content/default.asp?Article_ID=578&ArticlePage_ID=1244&cntPage=2

CHAPTER 8:
APPENDICES

Appendix 8.1: Study Information Sheet for Participants in Afrikaans



**FACULTY OF HEALTH SCIENCES
SCHOOL OF PHYSIOTHERAPY, SPORT SCIENCE AND OPTOMETRY
DISCIPLINE OF PHYSIOTHERAPY**

Geagte Mnr/ Mevrou

Dankie dat U die tyd gaan neem om deel te wees van hierdie navorsings projek. U hulp word opreg waardeur. Lees asseblief hierdie dokument deeglik deur voor u vir ons toestemming gee om deel te wees van hierdie projek. Voel asseblief vry om vir my enige vrae te vra.

DOEL VAN DIE NAVORSING

Ek is tans besig met my meestersgraad in Fisioterapie vanaf die Universiteit van KwaZulu-Natal. Die doel van die navorsing is om te bepaal of 'n vertaling van 'n vraelys voldoen aan die vereistes van 'n korrekte vertaling.

WAT BEPAAL DIE NAVORSING

Ons will u graag vra om die volgende lys van 9 vrae te lees en dan eerlik te antwoord. Die vraelys is kort, en behoort U nie langer as 3-5 minute te neem nie. Daarna sal ek U graag 'n paar kort vrae wil vra oor wat U persepsie was oor die vraelys. U kan enige tyd van die navorsing ontrek.

IS DAAR ENIGE RISIKO VERBONDE AAN DIE NAVORSING?

Nee, daar is geen risiko verbonde aan die navorsing nie.

SAL EK BETAAL WORD VIR MY DEELNAME?

Ongelukkig sal daar geen betaling wees vir u deelname aan die studie nie.

WAT GEBEUR MET DIE RESULTATE?

U naam en persoonlike informasie word privaat en konfidentsieel gehou. Die informasie wat moontlik gaan publiseer word sal geensins U naam of persoonlike informasie beskikbaar maak nie. Slegs die navorsingspan sal met die inligting werk. Informasie van die navorsing word veilig toegesluit in 'n kabinet, en word na 5 jaar vernietig.

KAN EK ONTREK VAN DIE NAVORSING?

U kan op enige oomblik ontrek uit die navorsing uit.

ETIESE TOESTEMMING

Hierdie navorsing het vir volle etiese vrywaring gekwalifiseer deur die “Human and Social Science Ethics Committee” van die Universiteit van KwaZulu-Natal. Die projek se registrasie nommer is HSS/0171/016M. Vir meer inligting kan U hulle kontak deur 'n epos te stuur na (HssrecHealthsciences@ukzn.ac.za) of hulle te skakel by (031 260 4557/2384).

Baie dankie vir U deelname aan my navorsing.

Navorser: Pierre Röscher

Selfoon: 071 364 7686/ e-pos: pierre.roscher@gmail.com

Appendix 8.2: Consent Form for Participants.



FACULTY OF HEALTH SCIENCES
SCHOOL OF PHYSIOTHERAPY, SPORT SCIENCE AND OPTOMETRY
DISCIPLINE OF PHYSIOTHERAPY

Vrywaringsvorm

Ek..... (volle naam van deelnemer) hiermee bevestig ek dat ek die doel van die navorsing verstaan ek met my vrywaring bevestig dat ek deelneem aan die navorsing. Ek bevestig dat ek vrywillig deelneem aan die studie, en ek verstaan dat my deelname aan die navorsing op enige oomlik beindig kan word deur my as ek wou. Ek verstaan dat al my inligting beskerm sal word deur die navorsers.

Geteken deur deelnemer:

Datum:

.....

.....

Appendix 8.3: Practice Information Sheet and Permission Form



**FACULTY OF HEALTH SCIENCES
SCHOOL OF PHYSIOTHERAPY, SPORT SCIENCE AND OPTOMETRY
DISCIPLINE OF PHYSIOTHERAPY**

24 February 2016

To: The private practice owner

Re: Permission to conduct a research study

Dear: Sir / madam

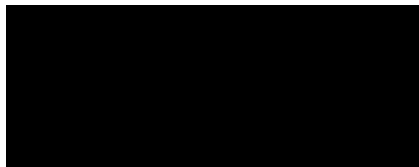
I, Pierre Röscher would like to request permission to conduct my study "The Afrikaans version of the STarT Back Tool: a translation and cultural adaptation research at your physiotherapy practice. I am a registered Masters student at the University of KwaZulu-Natal. I have decided to undertake the study because there is currently no Afrikaans translation of the STarT back Tool available, and it is clinically relevant for such a translation to be completed. The objectives of the study are to successfully translate and culturally adapt the Start Back Tool into Afrikaans. Once the Tool has been translated, it is to be tested on a small amount of Afrikaans speaking patients. This will assist in determining whether or not the tool has been adequately translated and culturally adapted for use in clinical practice. Ethical approval to conduct the study has been granted by the University of KwaZulu-Natal (Please see attached letter). The study will be conducted at various private physiotherapy practices over the Western Cape of South Africa. I am not undertaking any other research project apart from this one. There will be no financial or human resource implication to your private practice as a result of my study.

I believe that this study will improve the quality and efficacy of physiotherapeutic management of low back pain amongst Afrikaans speaking patients.

If you require any further information with regards to the ethical aspects of this study, please feel free to contact the Human and Social Science Ethics Committee via email at HssrecHealthsciences@ukzn.ac.za or contact them on: 031 260 4557/2384.

Should you require further information please feel free to contact me. I thank you for your attention in the above motivation and I sincerely look forward to hearing from you.

Yours faithfully,



Mr. Pierre Röscher

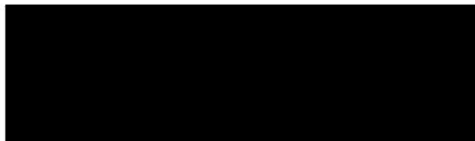
(BSc) Physiotherapy Wits

071 364 7686

CONSENT FORM

I, Ina Diener.....the private practice owner at the physical
address: 16 Formosa Street, Stellenbosch.....hereby give Pierre
Röscher ID 8605295055089 permission to conduct his research study "The Afrikaans version
of the STarT Back Tool: a translation and cultural adaptation, at my physiotherapy practice at
a future date and time convenient to me.

I acknowledge that this does not give the researcher consent to conduct his research on patients
seeking treatment at my practice, and that individual written patient consent still has to be
obtained from each patient participating in the study.



Private Practice Owner

24/03/2016

Date

Appendix 8.4: Data Collection Tools

Appendix 8.4.1: Forward Translation Into Target Language.

Name of Translator #1:

Name of Translator #2:

Original Version Item:	Forward Translated Version T-1	Forward Translated Version T-2
Thinking about the last 2 weeks tick your response to the following questions:		
My back pain has spread down my leg(s) at some time in the last 2 weeks		
I have had pain in the shoulder or neck at some time in the last 2 weeks		
I have only walked short distances because of my back pain		
In the last 2 weeks, I have dressed more slowly than usual because of back pain		
It's not really safe for a person with a condition like mine to be physically active		
Worrying thoughts have been going through my mind a lot of the time		
I feel that my back pain is terrible and its never going to get any better		
In general I have not enjoyed all the things I used to enjoy		
Overall, how bothersome has your back pain been the the last 2 weeks		

**Appendix 8.4.2: Form Summarizing the Synthesis of the Two Forward Translations
(Version T-12)**

Original Version Item:	Forward Translated Version T-12
Thinking about the last 2 weeks tick your response to the following questions:	
My back pain has spread down my leg(s) at some time in the last 2 weeks	
I have had pain in the shoulder or neck at some time in the last 2 weeks	
I have only walked short distances because of my back pain	
In the last 2 weeks, I have dressed more slowly than usual because of back pain	
It's not really safe for a person with a condition like mine to be physically active	
Worrying thoughts have been going through my mind a lot of the time	
I feel that my back pain is terrible and its never going to get any better	
In general I have not enjoyed all the things I used to enjoy	
Overall, how bothersome has your back pain been the the last 2 weeks	

Appendix 8.4.3: Back Translation Into English.

Name of Translator #1:

Name of Translator #2:

Original Version Item:	Forward Translated Version BT-1	Forward Translated Version BT-2
Thinking about the last 2 weeks tick your response to the following questions:		
My back pain has spread down my leg(s) at some time in the last 2 weeks		
I have had pain in the shoulder or neck at some time in the last 2 weeks		
I have only walked short distances because of my back pain		
In the last 2 weeks, I have dressed more slowly than usual because of back pain		
It's not really safe for a person with a condition like mine to be physically active		
Worrying thoughts have been going through my mind a lot of the time		
I feel that my back pain is terrible and its never going to get any better		
In general I have not enjoyed all the things I used to enjoy		
Overall, how bothersome has your back pain been the the last 2 weeks		

Appendix 8.4.4: Translation Committee Report

Role	Name	Report
Clinician		
Translator #1		
Translator #2		
Back Translator #1		
Back Translator #2		
Language Specialist		

Report of Discrepancies and Their Resolution

Issue: (specify ten # and describe issue)	Resolution

Appendix 8.4.5: Pre-Testing Form

Pre-testing Form

Population Description	
Sample size	
Probe Interview Notes	
Final Documentation	
Notes	
Comments	

Appendix 8.4.6: Interview with Study Participants.

Actual Question	Type of Question	Answer
1. Wat dink U was die doel van hierdie vraelys?	Open ended question	
2. Dink U dat hierdie vraelys vir U geneesheer 'n beter idee gee van u kondisie?	Open ended question	
3. Dink U dat hierdie vraelys dit moontlik maak vir u geneesheer om 'n meer ingeligte keuse te maak met betrekking tot die behandeling van U kondisie?	Open ended question	
4. Kon U al die vrae maklik en vinnig beantwoord en kon U die stellings maklik verstaan?	Open ended question	
5. Het U enige ander insette met betrekking tot die vraelys?	Open ended question	

Appendix 8.4.7a: Completed Forward Translation Into Target Language.

Forward Translation into Target Language.

(Version T-2) Translator 1

Original Version Item:	Forward Translated Version T-2
Thinking about the last 2 weeks tick your response to the following questions:	As u terug dink aan die afgelope 2 weke, merk die toepaslike antwoord op die volgende vrae:
My back pain has spread down my leg(s) at some time in the last 2 weeks	My rugpyn het iewers in die afgelope 2 weke in my been (bene) af verwys
I have had pain in the shoulder or neck at some time in the last 2 weeks	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad
I have only walked short distances because of my back pain	As gevolg van my rugpyn kon ek net kort afstande loop/aflê
In the last 2 weeks, I have dressed more slowly than usual because of back pain	In die afgelope 2 weke, trek ek stadiger as gewoonlik aan as gevolg van my rugpyn /As gevolg van my rugpyn trek ek stadiger as gewoonlik aan in die afgelope 2 weke.
It's not really safe for a person with a condition like mine to be physically active	Vir 'n persoon met 'n toestand soos myne, is dit nie regtig veilig om fisies aktief te wees nie
Worrying thoughts have been going through my mind a lot of the time	Kommerwekkende gedagtes kruis gereeld my gedagtegang
I feel that my back pain is terrible and it's never going to get any better	My rugpyn is verskriklik en dit voel vir my asof dit nooit enigsins beter gaan word nie
In general I have not enjoyed all the things I used to enjoy	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie / (Oor die algemeen geniet ek nie meer al die dinge wat ek altyd geniet het nie)
Overall, how bothersome has your back pain been the last 2 weeks	In die laaste 2 weke as geheel, hoe lastig was u rugpyn gewees?

Report of Discrepancies and Their Resolution

Issue: (specify ten # and describe issue)	Resolution

Appendix 8.4.7b: Completed Forward Translation into Target Language.

(Version T-2) Translator 2

Original Version Item:	Forward Translated Version T-2
Thinking about the last 2 weeks tick your response to the following questions:	Dink aan die laaste 2 weke en maak n merkie by die volgende vrae
My back pain has spread down my leg(s) at some time in the last 2 weeks	Ek het agter gekom in die laaste 2 weke dat my rugpyn ook in my bene afgaan.
I have had pain in the shoulder or neck at some time in the last 2 weeks	In die laaste 2 weke het ek pyn in my skouer asook my in my nek ervaar.
I have only walked short distances because of my back pain	Ek kan net kort distansies loop as gevolg van my rugpyn.
In the last 2 weeks, I have dressed more slowly than usual because of back pain	As gevolg van my rugpyn het ek in die laaste 2 weke stadiger as normaal aangetrek.
It's not really safe for a person with a condition like mine to be physically active	Dit is nie veilig vir iemand met my kondisie om aan fisiese aktiwiteite deel te neem nie.
Worrying thoughts have been going through my mind a lot of the time	Waarskuwings ligte flikker die heelryd deur my gedagtes.
I feel that my back pain is terrible and it's never going to get any better	My rugpyn is baie erg en dit voel of ek nooit gaan beter word ni.
In general I have not enjoyed all the things I used to enjoy	Vandat ek rugpyn het geniet ek nie meer dinge soos voorheen nie.
Overall, how bothersome has your back pain been the last 2 weeks	Hoeveel het jou rug jou gepla oor die laaste 2 weke.

Report of Discrepancies and Their Resolution

Issue: (specify ten # and describe issue)	Resolution
It's not really safe for a person with my condition like mine to be physically active.	It's not advisable for a person with my condition (back pain) to be physically active.
	Dit word nie aanbeveel dat n persoon met rugpyn aan fisiese aktiwiteite deelneem nie.

**Appendix 8.4.8: Form summarizing the synthesis of the two forward translations
(Version T-12)**

Original Version Item:	Forward Translated Version T-1	Forward Translated Version T-2
Thinking about the last 2 weeks tick your response to the following questions:	<i>This will be completed</i>	<i>This will be completed</i>
My back pain has spread down my leg(s) at some time in the last 2 weeks	<i>This will be completed</i>	<i>This will be completed</i>
I have had pain in the shoulder or neck at some time in the last 2 weeks	<i>This will be completed</i>	<i>This will be completed</i>
I have only walked short distances because of my back pain	<i>This will be completed</i>	<i>This will be completed</i>
In the last 2 weeks, I have dressed more slowly than usual because of back pain	<i>This will be completed</i>	<i>This will be completed</i>
It's not really safe for a person with a condition like mine to be physically active	<i>This will be completed</i>	<i>This will be completed</i>
Worrying thoughts have been going through my mind a lot of the time	<i>This will be completed</i>	<i>This will be completed</i>
I feel that my back pain is terrible and it's never going to get any better	<i>This will be completed</i>	<i>This will be completed</i>
In general I have not enjoyed all the things I used to enjoy	<i>This will be completed</i>	<i>This will be completed</i>
Overall, how bothersome has your back pain been the last 2 weeks	<i>This will be completed</i>	<i>This will be completed</i>

**Completed Form summarizing the synthesis of the two forward translations
(Version T-12)**

Original Version Item:	Forward Translated Version T-12
Thinking about the last 2 weeks tick your response to the following questions:	Terwyl u aan die afgelope 2 weke terugdink, merk asseblief u antwoorde op die volgende vrae:
My back pain has spread down my leg(s) at some time in the last 2 weeks	My rugpyn het iewers in die afgelope 2 weke langs my bene af versprei
I have had pain in the shoulder or neck at some time in the last 2 weeks	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad
I have only walked short distances because of my back pain	Ek het net kort afstande geloop as gevolg van my rugpyn
In the last 2 weeks, I have dressed more slowly than usual because of back pain	In die afgelope 2 weke het ek stadiger as gewoonlik aangetrek as gevolg van rugpyn
It's not really safe for a person with a condition like mine to be physically active	Dit is nie regtig veilig vir iemand met 'n toestand soos myne om fisies aktief te wees nie
Worrying thoughts have been going through my mind a lot of the time	Kommerwekkende gedagtes het gereeld deur my gedagtes gegaan
I feel that my back pain is terrible and its never going to get any better	Ek voel my rugpyn is verskriklik en dat dit nooit enigsins beter gaan word nie
In general I have not enjoyed all the things I used to enjoy	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie
Overall, how bothersome has your back pain been the last 2 weeks	In die geheel genome, hoe lastig was u rugpyn die afgelope 2 weke?

Appendix 8.4.9: Back Translation into English.**Form Translating the Synthesized English Version Back to the Original Language
(Version T-3) (translator 4)**

Your interpretation of an English version	Afrikaans Translated Version
Looking back over the last 2 weeks kindly indicate your answers to the following questions	Terwyl u aan die afgelope 2 weke terugdink, merk asseblief u antwoorde op die volgende vrae:
During the last two week the backache has spread down to my legs	My rugpyn het iewers in die afgelope 2 weke langs my bene af versprei
At times during the last two weeks I have had pain in my neck and shoulders	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad
I have only been able to walk short distances due to the backache	Ek het net kort afstande geloop as gevolg van my rugpyn
For the last two weeks I have dressed slower than usual due to the backache	In die afgelope 2 weke het ek stadiger as gewoonlik aangetrek as gevolg van rugpyn
It is not really safe for somebody in my situation to be physically active	Dit is nie retig veilig vir iemand met 'n toestand soos myne om fisies aktief te wees nie
Worrying thoughts regularly go through my mind	Kommerwekkende gedagtes het gereeld deur my gedagtes gegaan
The back pain is terrible and feels like it never even going to get remotely better	Ek voel my rugpyn is verskriklik end at dit nooit enigsins beter gaan word nie
Generally, I don't enjoy the things I used to	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie
Generally speaking, how irritating has the backache been the last two weeks?	In die geheel genome, hoe lastig was u rugpyn die afgelope 2 weke?

Report of discrepancies and their resolution

Issue: (specify ten # and describe the issue)	Resolution

Appendix 8.4.10: Form Translating the Synthesized English Version Back to the Original Language
(Version T-3)

Your interpretation of an English version	Afrikaans Translated Version
	Terwyl u aan die afgelope 2 weke terugdink, merk asseblief u antwoorde op die volgende vrae:
Somewhere in the last two weeks the pain started radiating down my legs	My rugpyn het iewers in die afgelope 2 weke langs my bene af versprei
Somewhere in the last two weeks I had pain in my shoulders and neck	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad
I could only walk short distances due to my back pain	Ek het net kort afstande geloop as gevolg van my rugpyn
In the last two weeks I have been taking longer to dress due to my back pain	In die afgelope 2 weke het ek stadiger as gewoonlik aangetrek as gevolg van rugpyn
It is not really safe for me to do physical work due to my condition	Dit is nie retig veilig vir iemand met 'n toestand soos myne om fisies aktief te wees nie
Often worrying thoughts have been going through my mind	Kommerwekkende gedagtes het gereeld deur my gedagtes gegaan
I feel my back pain is so severe and that it is never going to get better	Ek voel my rugpyn is verskriklik end at dit nooit enigsins beter gaan word nie
In general I don't enjoy that what I used to enjoy	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie
In general, how bad was your back pain over the last two weeks?	In die geheel genome, hoe lastig was u rugpyn die afgelope 2 weke?

Report of Discrepancies and Their Resolution

Issue: (specify ten # and describe the issue)	Resolution

Appendix 8.4.11: Translation Committee Report

Report of Discrepancies and Their Resolution

Issue: (specify ten # and describe issue)	Resolution
<p>Issue 1: Translator #2 generally translated less literally and more freely, e.g. “thinking about the last 2 weeks” was translated not as a request but rather as a demand (“dink”). Also, “maak ‘n merkie” is more freely translated than Translator #1’s version, which adheres more closely to the original.</p> <p>Issue 2: Translator #1 added the word “toepaslik” to the translation, which was not in the original source text.</p>	<p>I kept more or less to Translator #1’s version, but used “terwyl” instead of “as”, because in the context it made more sense, since a request follows in the second half of the sentence. I added “asseblief” to the synthesis, because I believe in Afrikaans in this context this is an appropriate way of addressing participants.</p> <p>I tried to leave out words which were not in the source text.</p>
<p>Issue 3: I kept more or less to Translator #1’s version, but changed the “verwys”, because in Afrikaans that is more technical language and normally people without medical training would use more plain language. Translator #2 added “agtergekom” to the sentence, and that was not mentioned in the original source text.</p>	<p>I tried to use plain language, as prescribed in the official language policy in South Africa, and to keep to the original sense of the source text as much as possible, without adding my own interpretation or meanings.</p>
<p>Issue 4: Here, I used Translator #1’s sentence in its entirety, since according to me it is an accurate translation of the source text. Translator #2 wrote “skouer asook my nek”, while the source text said “shoulder or neck”.</p>	<p>I used Translator #1’s version in its entirety.</p>
<p>Issue 5: The source text uses the past tense, which was rendered in Translator #1’s version, but not in that of Translator #2. However, Translator #1 changed the order of the sentence.</p>	<p>I mainly used Translator #1’s version, but changed the order of the sentence to conform more to the source text. I also changed to “het ... geloop” instead of “kon ... loop”, because that is in accordance to the source text.</p>
<p>Issue 6: Here, Translator #1 used the present tense whereas the source text made use of the past tense. Translator #2’s version is more true to the original, but I changed to order of the</p>	<p>I changed the “normaal” in Translator #2’s version to “gewoonlik”, because I am of the opinion that that is better Afrikaans, but for the rest I made use of Translator #1’s first attempt, but changed the sentence into the past</p>

sentence to adhere more strictly to the original.	tense, to adhere more strictly to the source text.
Issue 7: Translator #2's version conforms more to the source text regarding word order, but the word "really" was omitted. Also, a more "Afrikaans-oriented" translation of "condition" would be "toestand" instead of "kondisie", and preference is usually given to Afrikaans words with Germanic forms in medical translations, rather than using the Romanic equivalents.	I combined the two versions into one by using the more Germanic form in Translator #1's version but the sentence structure of Translator #2's version and adding "regtig" from version 1, in order to adhere to the source text more closely.
Issue 8: Here, Translator #1 used the present tense, whereas the source text used the past tense. But the meaning of Translator #1's translation reflects the meaning of the source text more closely than that of Translator #2's translation. The phrase "waarskuwings ligte", apart from the fact that this construction should be one word in Afrikaans, does not reflect the meaning of "worrying thoughts".	I used Translator #1's version, but changed the sentence from present tense into past tense.
Issue 9: Neither of the translations rendered the phrase "I feel", and Translator 2 stated "ek" where the source text used "it".	I added the phrase "ek voel", to reflect the source text more accurately, but used the rest of Translator #1's translation.
Issue 10: Translator #2's translation does not adhere closely to the source text, because the word "vandat" does not coincide with the meaning of "in general".	I used the first attempt of Translator #1, because this closely reflects the meaning of the source text.
Issue 11: The expression "overall" is not reflected in Translator #2's version, and Translator #1 uses "in die laaste 2 weke as geheel", which according to my opinion has a more restricting meaning than my option. Also, the construction "was ... gewees" is not correct in Afrikaans.	I opted for the expression "in die geheel genome", because this is a suitable equivalent for "overall" and has a more general meaning than the attempt by Translator #1.

Appendix 8.5: English STarT Back Tool

The Keele STarT Back Screening Tool

Patient name: _____ Date: _____

Thinking about the **last 2 weeks** tick your response to the following questions:

	Disagree 0	Agree 1
1 My back pain has spread down my leg(s) at some time in the last 2 weeks	<input type="checkbox"/>	<input type="checkbox"/>
2 I have had pain in the shoulder or neck at some time in the last 2 weeks	<input type="checkbox"/>	<input type="checkbox"/>
3 I have only walked short distances because of my back pain	<input type="checkbox"/>	<input type="checkbox"/>
4 In the last 2 weeks, I have dressed more slowly than usual because of back pain	<input type="checkbox"/>	<input type="checkbox"/>
5 It's not really safe for a person with a condition like mine to be physically active	<input type="checkbox"/>	<input type="checkbox"/>
6 Worrying thoughts have been going through my mind a lot of the time	<input type="checkbox"/>	<input type="checkbox"/>
7 I feel that my back pain is terrible and it's never going to get any better	<input type="checkbox"/>	<input type="checkbox"/>
8 In general I have not enjoyed all the things I used to enjoy	<input type="checkbox"/>	<input type="checkbox"/>

9. Overall, how **bothersome** has your back pain been in the **last 2 weeks**?

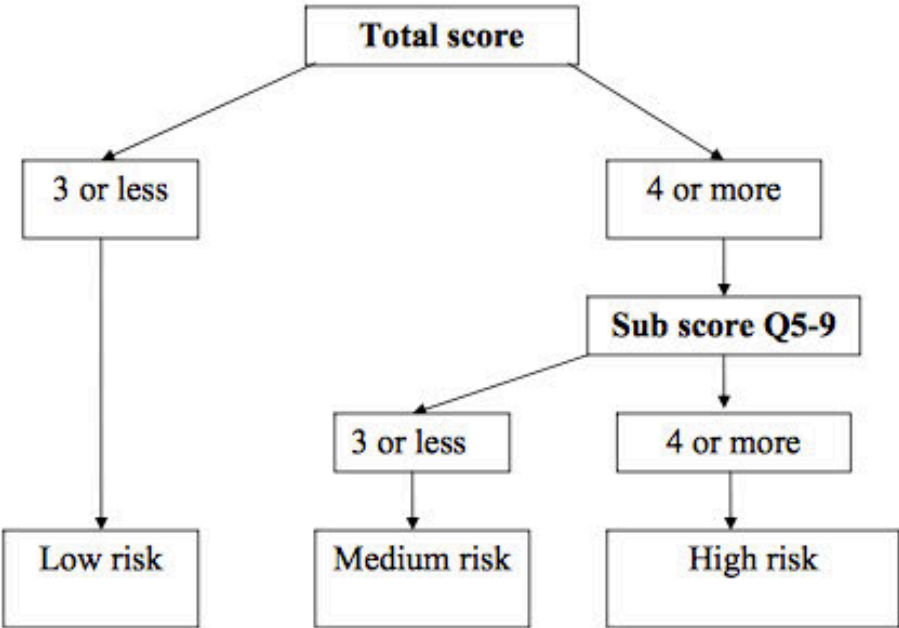
Not at all	Slightly	Moderately	Very much	Extremely
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	0	0	1	1

Total score (all 9): _____ **Sub Score (Q5-9):** _____

© Keele University 01/08/07
Funded by Arthritis Research UK

Appendix 8.6: STarT Back Tool Scoring Algorithm

The STarT Back Tool Scoring System



© Keele University 01/08/07
Funded by Arthritis Research UK

Appendix 8.7: STarT Back Tool Targeted Treatment Algorithm



Keele STarT Back Screening Tool

The Keele STarT Back Screening Tool is a brief, validated tool (Hill et al 2008), designed to screen primary care patients with low back pain for prognostic indicators that are relevant to initial decision making.

The instrument is being used by a range of clinicians to systematically identify patients 'at risk' of persistent symptoms.

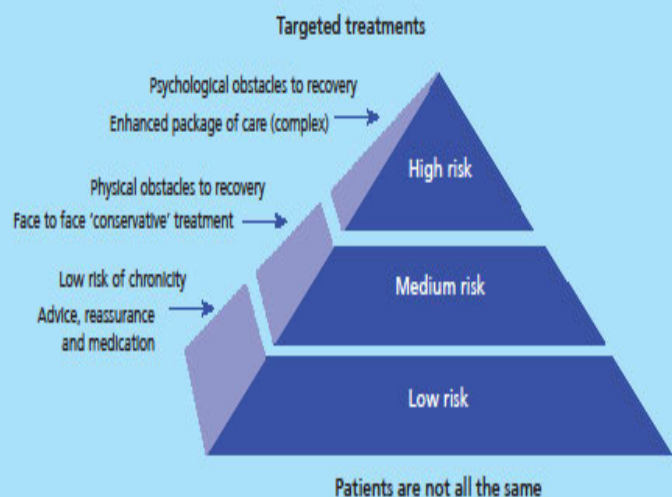
The nine-item tool is designed to classify patients into one of three subgroups for targeted primary care management:

- > Low risk
- > Medium risk (physical indicators)
- > High risk (physical and psychosocial indicators)

The Keele STarT Back Screening Tool is available on this site.

Concept of subgroup and targeting for primary care low back pain

Figure to illustrate the Keele STarT back screening and targeted treatment concept



© Keele University 01/08/07
Funded by Arthritis Research UK

For more information Email: RAHspine@health.sa.gov.au Web: www.sahealth.sa.gov.au/lumbardisorders Date of development: June 2011



Appendix 8.8: Pre-Pilot Afrikaans Version of the STarT Back Tool

The Keele STarT Back Tool (Afrikaans version)-P Röscher 2016			
Terwyl u aan die afgelope 2 weke terugdink, merk asseblief u antwoorde op die volgende vrae:		Stem NIE Saam	Stem Saam
1.	My rugpyn het iewers in die afgelope 2 weke langs my bene af versprei		
2.	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad		
3.	Ek het net kort afstande geloop as gevolg van my rugpyn		
4.	In die afgelope 2 weke het ek stadiger as gewoonlik aangetrek as gevolg van rugpyn		
5.	Dit is nie regtig veilig vir iemand met 'n toestand soos myne om fisies aktief te wees nie		
6.	Kommerwekkende gedagtes het gereeld deur my gedagtes gegaan		
7.	Ek voel my rugpyn is verskriklik en dat dit nooit enigsins beter gaan word nie		
8.	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie		

9. In die geheel genome, hoe lastig was u rugpyn die afgelope 2 weke?

Glad Nie	'n Bietjie	Meer as gewoonlik	Baie	Versriklik Baie

Appendix 8.9: The Final Version of the Afrikaans STarT Back Tool (STarT-A)

The Keele STarT Back Tool (Afrikaans version)-P Röscher 2016			
Terwyl u aan die afgelope 2 weke terugdink, merk asseblief u antwoorde op die volgende vrae:		Stem NIE Saam	Stem Saam
1.	My rugpyn het iewers in die afgelope 2 weke langs my bene af versprei		
2.	Ek het iewers in die afgelope 2 weke pyn in my skouer of nek gehad		
3.	Ek het net kort afstande geloop as gevolg van my rugpyn		
4.	In die afgelope 2 weke het ek stadiger as gewoonlik aangetrek as gevolg van rugpyn		
5.	Dit is nie regtig veilig vir iemand met 'n toestand soos myne om fisies aktief te wees nie		
6.	Bekommerde gedagtes het deur my kop gegaan die laaste tyd.		
7.	Ek voel my rugpyn is verskriklik en dat dit nooit enigsins beter gaan word nie		
8.	Oor die algemeen het ek nie meer die dinge geniet wat ek altyd geniet het nie		

9. In die algemeen, hoe lastig was u rugpyn die afgelope 2 weke?

Glad Nie	'n Bietjie	Meer as gewoonlik	Baie	Versriklik Baie

Appendix 8.10: Ethical Clearance form



28 April 2016

Mr Pierre Röscher (216072042)
School of Health Sciences
Westville Campus

Dear Mr Röscher,

Protocol reference number: HSS/0171/016M

Project title: The Afrikaans translated and culturally adapted version of the STarT back tool

Full Approval – Expedited / Amendment Application

In response to your application received on 18 February 2016 and your amendment request on 22 April 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted FL

Amendment:

- **Change to Research Sites**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully


Dr Shenguka Singh (Chair)

/ms

Cc Supervisor: Mr N Pefile and Ms L Jacobs
Cc Academic Leader Research: Professor Mershen Pillay
Cc School Administrator: Ms Phindile Nene