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**Teaching basic Xhosa to non-Xhosa-speaking
Health Care Workers: The effects on patient satisfaction,
perceived competence to communicate effectively with
Xhosa-speaking patients and job satisfaction levels.**

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Declaration

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ABSTRACT

Background

Many research studies have demonstrated difficulties experienced by both patients and Health Care Workers (HCW) due to language barriers in the delivery of health care. A few studies have been published in the USA investigating the effects of teaching Spanish to physicians on Hispanic patients' satisfaction levels¹, rates of errors in communication² and efficiency of physicians' communication³. No similar studies have been conducted in South Africa.

Aim

To determine if a basic Xhosa course for non-Xhosa-speaking Health Care Workers, working in Primary Health Care Centres in Cape Town improves patient satisfaction for Xhosa-speaking patients, their perceived ability to communicate effectively with Xhosa-speaking patients, and job satisfaction levels.

Methodology

Six non-Xhosa speaking health care workers completed a ten week basic Xhosa course. Before (pre-intervention) and after (post-intervention) the course, participants completed a questionnaire assessing their own perceived language skills and job satisfaction levels related to language ability. Before and after the course, Xhosa-speaking patients cared for by these health workers completed satisfaction questionnaires. The study was set at Primary Health Centres and one District Hospital in Cape Town.

Results

Fifty four Xhosa-speaking patients completed satisfaction questionnaires. Pre-intervention (n=27) and post-intervention (n=27) samples did not differ significantly in age, gender and self-rated ability to speak English. The results showed a significant improvement in patient satisfaction levels and in patient understanding. Post intervention, patients were more likely to agree that “the staff member was concerned about me”, “was respectful” and “listened to what I said”. There was a non-significant trend to an increase in the scoring that “the staff member made me feel comfortable”. Post intervention patients were more likely to agree that “the staff member understood my problem”, that “I understood what the staff member said” and that “the instructions given to me were clear”.

Post-intervention, The HCWs rated themselves as better able to communicate with Xhosa-speaking patients and less worried about making mistakes in communication. In the assessment of their job satisfaction levels, only one question showed significant improvement: they felt less frustrated when communicating with Xhosa-speaking patients.

Other outcome measures showing smaller non-significant improvements included “enjoying my job to the full”, and the assessment of the HCWs’ relationship with Xhosa-speaking staff members. HCWs perceived learning Xhosa to be more important after completing the course, but this was not a significant difference. HCWs assessed the use of interpreters as being less effective after the intervention than they did before the intervention, but this was not significant.

Conclusions

Xhosa-speaking patients’ satisfaction and understanding levels can be significantly improved by non-Xhosa-speaking HCWs learning basic Xhosa. Non-Xhosa-speaking HCWs who learn Xhosa can find their work less frustrating in terms of language barrier, and can also experience improved confidence in their communication skills when speaking to Xhosa-speaking patients.

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References

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ABBREVIATIONS USED IN THE TEXT

MDHS – Metro District Health Services

CHC – Community Health Centre

HCW – Health Care Worker

LEP – Limited English Proficiency

ART – Anti-retroviral therapy

HIV – Human Immunodeficiency Virus

STI – Sexually Transmitted Infection

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The research problem

Purlito⁴ states “The greater responsibility for respectful verbal interaction between patient and health professional lies with the latter”. Helman⁵ adds to this by saying, “[each] clinician should acquire knowledge of the specific language of distress used by the patient”.

Communication difficulties between Health Care Workers (HCWs) and non-language-concordant patients are well documented all over the world. The importance of good communication between HCW and patient cannot be over-emphasized.

In South Africa, there are 11 different official languages. In addition, there are refugees and residents from other African countries such as Zimbabwe, Somalia and Malawi living in the country, who speak languages other than the 11 official South African languages.

The most frequently spoken first language is Zulu (23.8% of the population), followed by Xhosa (almost 18%).⁶ English is the first language for 8.2% of the population and 13.3% speaks Afrikaans as a first language. Census data from 1991 showed that about 45% of the population had only a basic speaking knowledge of English.⁷

In the Public Health sector, the majority of the patients served are those who come from predominantly poor socio-economic circumstances and previously disadvantaged backgrounds. The Metro District Health Service (MDHS) provides a primary level service via Community Health Centres (CHCs) to the majority of the population in the Western Cape who can't afford to pay for health care.

Crossroads CHC is in a township in Cape Town. In the 2001 census⁸ 98.3% of occupants of Crossroads Township classified themselves as “Black African”. Ninety five point five percent of those polled spoke Xhosa as their first language, 2.5% another African language, 1.9% Afrikaans and only 0.14% spoke English as a first language.

The make-up of Health Care Workers attending to the patients at Crossroads CHC consists of: six doctors, none of whom speak Xhosa as a first language and three Clinical Nurse Practitioners, one of whom speaks Xhosa as her first language. In addition, there are two Pharmacists, a dietician and nutritionist, and a Physiotherapist none of whom speak Xhosa. The remaining staff members, consisting of nurses, general assistants and cleaners, counselors, receptionists and a social worker all speak Xhosa well. There are no interpreters employed at this CHC (or any CHC in the MDHS). This staff make up is similar to that of other CHCs serving Xhosa-speaking communities in the MDHS.

In October 2006, the MDHS conducted a Client Satisfaction Survey at Crossroads CHC. The areas looked at in the survey were: access, assurance, empathy, reliability, responsiveness, tangibles and general satisfaction. There was also a section for qualitative comments. Here, a number of patients mentioned that they wished that the doctors could learn to speak Xhosa, or that interpreters could be available to aid them in understanding when they consulted the doctors. (personal communication, unpublished data, September 3, 2007) Qualitative comments such as these were also present in the surveys of other CHCs serving Xhosa-speaking communities.

The objective of this study was to determine whether teaching basic Xhosa to non-Xhosa speaking HCWs improves patient satisfaction for Xhosa-speaking patients, perceived ability to communicate effectively with Xhosa-speaking patients, and job satisfaction levels.

Chapter 1: Literature Review

Health literacy, or the ability of individuals to access, understand, and use health-related information and services to make appropriate decisions⁹ is known to be lower in individuals who do not speak the language of their health care provider.

Most of a Health Care Worker's day is spent in face to face interaction with other people. Much of health care is communication-centered and it has been said that the more effectively and efficiently you learn to communicate, the better you will be at fulfilling your health care service role.¹⁰

Woloshin¹¹ states, "The physician-patient relationship is built through communication and the effective use of language." Lavizzo-Mourey¹² states "high-quality, patient-centered health care is contingent upon patients' understanding and following their doctors' advice - and upon health care providers listening to and understanding the needs of their patients". Communicating effectively in order to achieve the desired outcome of good quality care for patients should be a priority to all HCWs.

It was stated by Burgoon, Hanseker and Dawson¹³ in a book on communication, "A person who is elegant in elocution but does not listen to or understand others cannot be called an effective communicator."

Effective, two way communication is particularly important in the context of health care where an erroneous decision made due to miscommunication can potentially lead to life-threatening complications or even death.

1.1 How language barriers affect health care

Helman⁵ has stated, “Clinical consultations are usually conducted in a mixture of everyday language and medical jargon. However, the language of medicine itself has become more and more incomprehensible to the lay public.” When medical terms are used by either Health Care Worker or patient, they may have entirely different meanings. In a study by Boyle, it was found that doctors and patients interpreted even common medical terms in very different ways.¹⁴ If this has been found in health care workers and patients who speak the same language, how much more difficult must it be for HCWs and patients who do not speak the same first language to understand each other?

A study by Levin,¹⁵ based in a Western Cape hospital, on Xhosa-speaking patients’ understanding of terms used by English-speaking doctors and vice versa, found that there were different meanings ascribed to the same words used by speakers of different languages. In addition, commonly used Xhosa words were not understood by doctors and commonly used English words were not familiar to patients.

Numerous studies have demonstrated the negative effects that language and cultural barriers can have on patients’ health care. In the USA, a lot of research has demonstrated these difficulties. A literature review on the impact of language barriers to health care by Timmins¹⁶ showed that 86% of studies evaluating quality of care found a significant detrimental effect due to language barriers. Another study demonstrated that LEP patients reported a higher rate of complications from their medication than English-speaking patients.¹⁷ Worryingly, LEP patients have been demonstrated in one study to use fewer preventative services.¹⁸ And in a different study, they were shown to receive less health education.¹⁹ A number of studies have shown that LEP patients have a lower adherence to specific treatment plans as given by their health care provider than English-speaking patients.^{20 21 22} They have also been shown to be less likely to receive or to return for follow up appointments^{23 24}, to have more diagnostic services used on them²⁵, and to be less likely to have documented informed consent when invasive procedures are performed on them.²⁶ In addition, patients with LEP have been shown to be less satisfied with their clinicians’

communication and with their overall health care²⁷ than patients who access care from a language-concordant health care worker.

Studies in South Africa have cited similar difficulties between health care providers and patients due to language barriers. In a study in the Western Cape, the language barrier was cited as one of the reasons for doctors not initiating insulin therapy in those patients who needed it.²⁸ A qualitative study on factors affecting Anti-retroviral Therapy (ART) adherence also found that the health care providers thought that the language barrier was a factor which made adherence to therapy less optimal. The study reported that lower levels of education were strongly associated with poor adherence, and this was attributed to the fact that patients with lower educational levels often did not speak the same language as the provider.²⁹ It was recommended that providers should identify ways to minimize barriers in communication with patients who speak different languages. Another study done at New Somerset Hospital in the Western Cape found that the patient speaking the same language as the site staff at the ART centre (English in this case) was beneficial in terms of adherence to ART and viral suppression, and this was unrelated to socio-economic status.³⁰

In some studies, less satisfied patients have reported less intention to comply with their health care worker's recommendations,³¹ which of course has implications for quality of care and patient outcomes. In addition, less satisfied patients have been shown to change their health care provider more frequently.³²

1.2 The legalities around language

In the USA, there are more than 200 different languages spoken. The Civil Rights Act of 1964 states that no-one can be discriminated against on the basis of their race, colour or national origin. This makes the basis for language laws which are present in certain states, particularly addressing language issues related to health care.³³ California, for example has the highest number of laws addressing language access in health settings: more than 70 in 2007.

In South Africa, the constitution does make provision for the rights of people to education and legal proceedings in their first language. In addition it states that “Municipalities must take into account the language usage and preferences of their residents.” This implies that health care provided in each municipality should take into account which language is needed for that particular population, however there are no laws enforcing that people receive the necessary services in their language of choice from Health Care Centres. The constitution also states that “all official languages must enjoy parity of esteem and must be treated equitably.”³⁴

The language policy for the Western Cape of 2004 states “Any member of the public in the Western Cape may

a) use any one of the three official languages of the Western Cape (English, Afrikaans, Xhosa) in his or her communication with any institution of the provincial or local government, and

(b) be served in any of the three official languages at or by any institution of the provincial or local government where there is a substantial need for communication and services in that language based on the language needs and preferences of the community, and it can reasonably be expected of the institution concerned to communicate and render services in that language, with due consideration to the National Education Language Policy”³⁵

The majority of the population in South Africa does not understand English very well. The Pan South African Language Board's 2001 survey³⁶ on Language Use and Language Interaction in South Africa states: "more than 40% of people in South Africa often do not, or seldom, understand what is being communicated in English." In addition it was found that most South Africans are dissatisfied with the way their languages are used in the public sector. A large number of health care workers working in the public sector, particularly doctors, are not able to communicate with patients who do not speak English well, as they can't speak the language that the patient speaks.

1.3 The South African historical context

In 1948, the South African Government officially introduced apartheid laws. These laws which separated Whites from all other races, and made access to basic services such as health care and education difficult for those who were not White, have given rise to large inequalities in health care provided for the majority of the population which remain to this day, though to a lesser extent. Apartheid was only done away with through negotiations from 1990 to 1993, with the elections in 1994 signalling the official end to apartheid. In 1978, the ratio of doctors to patients for Whites was 1/400, but for Blacks, it was 1/44 000.³⁷ In 1975, six Black African doctors graduated from medical schools in South Africa. This was less than 1% of the total graduates though Blacks made up 70% of the population.³⁸

This has led to there being a large number of doctors who have qualified during this period being White, and not able to speak any Black African languages. In a report on the World Health Organisation International conference on apartheid and health in 1981, it was stated “Neither disease patterns nor health care services can be divorced from the social matrix in which they are embedded. Clearly not all disease is caused solely by social factors, but much of it is socially related, and the way in which it is dealt with almost invariably reflects the major cleavages in society.”³⁹ Our apartheid-based health services, with a low number of Black African-language-speaking doctors (amongst many other inequities) has led to the situation where it is difficult for patients in the public health sector to access a high quality, truly accessible and equitable service.

The WHO has stated as one of the principles of its constitution that informed and active co-operation on the part of the public is of high importance in the improvement of health for the people.³⁹ This is difficult to achieve when language barriers are still so prevalent in South Africa.

In an article in 1999, Crawford⁴⁰ states, “if health care is to become accessible and effective, the political will to address ‘the language barrier’ at all levels will have to be found.”

Unfortunately, ten years later, there has been very little progress towards addressing the language barrier successfully in health care.

1.4 Language barriers to health care in South Africa

Many studies have documented the problems that language barriers present when delivering health care, but to date there have been no intervention studies done in South Africa to address this problem. In a study on barriers to health care, done by Levin at Red Cross Children's Hospital in Cape Town, it was recommended that doctors need to be trained in communication.⁴¹ In another study on communication barriers by Schlemmer and Mash at Eben Donges Hospital in Worcester, Western Cape, the recommendation was that courses in communication skills should be offered to all medical staff.⁴² In fact in this study, the participating staff requested to be offered training in basic Xhosa. A study on communication difficulties in Baragwanath Hospital, in Johannesburg also recommended that staff be given basic training in the relevant languages of the patients attending there, and in addition recommended that trained interpreters should be hired.⁴³ In this study, 40% of the nurses working there stated that they were not willing to assist the doctors with interpreting for patients.

In a paper in 2002, Drennan highlighted the fact that there was no provision made for interpreter services in health care in South Africa.⁴⁴ This is of particular importance in the field of psychiatry where the nuances of what a person says may be used to aid in diagnosis of a condition. Similarly to most other areas of health care, he found that nurses were usually the people used for interpreting, but also ward cleaners, family members, and other patients were used on occasion.

In a 1999 paper “ ‘We can't all understand the Whites' language': an analysis of monolingual health services in a multilingual society”, Crawford⁴⁰ discusses how language differences perpetuate the power relationships between doctors and patients and also the hierarchical relationship between nurses and doctors. Again, the lack of provision of interpreters was cited as a major barrier to equity of access to health care for South Africans.

1.5 Language learning and teaching

Burgoon et al¹³ state that communication efforts can be considered using a cost vs benefit analysis. Attempting to communicate effectively with others can take a lot of effort and energy and individuals should consider how much time and effort they are willing to invest in any communication situation in order to get the best possible outcomes. It can be assumed that for a Health Care Worker to learn a second or third language will require a certain amount of time and effort. Therefore, the individual needs to assess whether the outcome will be worth the investment.

Krashen⁴⁵ proposes two attitudinal factors which relate to how well people acquire a second language: integrative motivation and instrumental motivation. These can help to predict how successful a person may be in learning a second language.

Integrative motivation has been shown to be a better predictor of second language proficiency, as it provides the students with the motivation to continue their studies. It is seen as the desire to be accepted and valued by members of the community that speak the language. Students with integrative motivation are more likely to interact with speaker of the language being acquired out of interest, and therefore acquire the language more easily.

Instrumental motivation is the desire to become proficient in a second language for practical reasons. This also predicts language acquisition, but to a lesser degree than integrative motivation does. This is more likely to be the motivation behind most Health Care Workers wishing to acquire a new language. They need to speak the language for practical reasons in order to make their working lives easier, but do not necessarily want to integrate and become valued members of the society which speaks the language they wish to learn.

1.6 Cultural competence

It is not just language itself, but an understanding of the patient's beliefs, background and behaviors, or cultural competence, that contributes to more effective communication between

patient and HCW. Fernandez, Schillinger, Grumbach, Rosenthal, Stewart, Wang and Perez-Stable⁴⁶ demonstrated that cultural competence, as well as language ability, was independently associated with patient satisfaction. In a study of interpreters' insights into patient-provider communication by Hudelson⁴⁷, it was also shown that cultural understanding, and not just language, is important for effective communication, even with an interpreter present. Interpreters have been referred to as “cultural brokers”, emphasizing their role in interpreting not just language, but assisting with cultural understanding in addition.⁴⁸

Levin's¹⁵ study examining culture-specific models of disease highlighted the importance of gaining cultural competence and not just language skills. Culture-specific explanations of diseases led to Xhosa-speaking patients and English-speaking doctors having different understandings of the meanings of certain terms used to describe common respiratory complaints in Xhosa and English.

Another study by Sifunda, Reddy, Braithwaite, Stephens, Bhengu, Ruiters and Van Den Bornes⁴⁹, looking at cultural meanings of HIV and STI-related terminology amongst Xhosa-speakers also emphasized the need for gaining cultural competence in order to better deal with HIV and STIs, especially from the preventative and health-promotive point of view. Again, there were shown to be many terms used which had culturally-specific meanings in either English or Xhosa which were not easily translated into the other language and could be important when designing health educational interventions.

A review article by Beach, Price, Gary, Robinson, Gozu Aysegul, Palacio, Jenckes, Feuerstein, Bass, Powe and Cooper⁵⁰ in 2005 showed that training in cultural competence for health professionals, defined as “the ability of individuals to establish effective interpersonal and working relationships that supersede cultural differences”, improves their knowledge, attitudes and skills and also improves patient satisfaction.

1.7 The role of interpreters

The use of interpreters has been widely studied. Different methods of interpretation are available in different countries, however most health care centers in South Africa rely on ad-hoc interpretation and do not have formalized services available. Ad-hoc interpretation may make use of a different health care worker or another category of staff, such as a cleaner or clerk; a family member, or another patient in the facility. This of course has implications for patient rights and confidentiality as well as accuracy of translation.

Nurses, usually the most educated staff members available for translation, are frequently used for this purpose. In a South African study in the Western Cape, nurses expressed the difficulties they experienced when translating for doctors.⁴⁰ They are often urbanized, and do not speak the same “deep” Xhosa that some of the patients do, and do not always understand the cultural beliefs and traditions of the rural Xhosas, but it is assumed that because they can speak Xhosa that they will be able to translate accurately. They expressed the difficulties of being taken away from their work in order to translate for doctors, and their unhappiness at often being called upon to break bad news to patients, though they may not have been trained in skills to do this. Translating is not as straightforward as just repeating what the patient/doctor has said to the other.

The use of trained interpreters has been shown to improve patient satisfaction and outcomes, to decrease the number of diagnostic tests performed and to increase the preventative services provided.^{51 52} Karliner, Jacobs, Chen and Mutha⁵³ performed a systematic review of literature related to interpreters and found that the use of interpreters improves communication (decreasing errors and increasing comprehension), utilization, clinical outcomes and satisfaction with care. In addition, it has been shown that training primary care physicians in the use of interpreters can lead to improved quality of communication as assessed by patients.⁵⁴ A study by Baker, Parker, Williams, Coates and Pitkin⁵⁵ showed that LEP patients believed that interpreters should have been called to assist more often than they were.

Despite the need expressed by patients and staff for interpreters, the Comprehensive Service Plan for Health Care 2010 in the Western Cape does not make any provision for interpreters in the staffing of CHCs, clinics or Hospitals.

There are, of course, disadvantages to using even a trained interpreter. Common errors made by interpreters are well-documented, including substitution, omission, addition and condensation of both the health care worker's and the patient's statements.^{56 57}

Recommendations have been made in various studies, in various countries, to have more interpreters available, and for staff to use them more optimally, but problems remain, as the recommendations are frequently not implemented. In the USA, where more than 200 languages are spoken, 80% of the states don't pay for interpreters.⁵⁸ In Switzerland, a 1999 national survey showed that only 11% of medical and psychiatric services employed qualified interpreters, but most wished that professional interpreter services were available.⁵⁴
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However, a different study, done by Baker, Hayes and Fortier⁶⁰ with Spanish-speaking patients, has shown that patients prefer direct communication in their own language, to having an interpreter. Interpreter use was correlated negatively with patient satisfaction, when compared with direct communication in patients' own language. A study by Ngo-Metzger, Sorkin, Phillips, Greenfield, Masagli, Clarridge and Kaplan¹⁹ showed similar results in respect of patient satisfaction related to interpreter use versus language-concordant physicians. Patients who had had an interpreter present during their consultations were twice as likely to rate their provider as fair or poor as compared to those who had a language-concordant physician.

1.8 Teaching language to Health Care Workers

Considering the difficulties with interpreter use (both the lack of availability of interpreters and the problems experienced when actually using interpreters), researchers have studied the

effects of teaching a relevant language to Health Care Workers. In one such study by Mazor, Hampers, Chande and Krug¹ performed in a Paediatric emergency department in the USA, nine physicians completed a ten week medical Spanish course. The researchers assessed Spanish-only-speaking patients' and families' perceptions of the physicians' communication skills both before and after the course. They assessed four areas for levels of satisfaction: whether the physician was concerned about the child, whether he/she made them feel comfortable, whether he/she was respectful and whether he/she listened to what was said. After the ten week course was completed, improved satisfaction was shown by the patients in all of these areas. There was also a decrease in the use of interpreters. In addition, the majority of the physicians expressed increased confidence in addressing common emergency department complaints in Spanish after completing the course.

In an article by Bender and Harian,⁶¹ an Immigrant Health Initiative, which promotes Spanish learning for Health Professionals in North Carolina, USA is highlighted. A two week immersion course is recommended to adequately “kick-start” the learning of an additional language. In these workshops, attendees focus on “living” the language and learning cultural practices. The participants commit to speaking Spanish for the duration of the workshop. Initially, a four week immersion program was offered, but Health Professionals found it too difficult to be away from their work for that amount of time, so the course was reduced to a two week period. There are also 12-14 week courses of two hours a week offered, to accommodate those who can't get away from work for prolonged periods. However they found the learning to be most successful in the immersion workshops. Participants reported improved comprehension, increased confidence in speaking, improved grammar and acquisition of a broader vocabulary on completing the two week immersion course.³ Co-workers and supervisors also noticed improvement in communication. Another benefit reported, which resulted in improved patient care was that there were shorter waiting times that Latino patients experienced as a result of the participant being able to handle more client interactions in Spanish independently.

A further study, also in the USA, by Prince and Nelson² focused on the number and types of errors made by doctors after they completed a 45 hour medical Spanish course. The errors were classified into major and minor errors. The rating of errors was done by trained

interpreters listening to audio tapes of consultations, with minor errors constituting grammatical errors, where the understanding of the patient and doctor was still correct and major errors were those where the doctor and patients did not understand each other on one or more points. As part of the course, participants were trained in the effective use of professional interpreters in addition to the language skills themselves. In this study, it was shown that doctors still made use of untrained interpreters (25% of interviews) as well as trained interpreters (46%). In the consultations using trained interpreters, no major errors were picked up, however when untrained interpreters were used, major errors were made in 29% of the consultations. The conclusion of this study was that medical language courses may be a useful adjunct to professional interpreters, but should not replace them. Errors may be made when participants on the courses assume their knowledge of the language is greater than it is and therefore do not use an interpreter.

At the end of the course, the doctors all stated that the training had been valuable and that they perceived that their Spanish-speaking patients were appreciative of their efforts to learn Spanish. The patients confirmed that they did appreciate the effort, with one stating that it was a relief to finally have a doctor who tries to understand what they are saying.

These studies all relate to teaching and learning Spanish in the USA, so they can not necessarily be used to infer that similar results may be obtained when teaching and learning Xhosa in South Africa. The following study aims to determine if similar improvements can be achieved with Xhosa learning in South Africa.

Chapter 2: Methodology

2.1 Study setting

The study was set in two Metro District Health Services primary care Community Health Centres and a District Hospital in the Western Cape. The researcher was a doctor working at Crossroads CHC at the time of the study.

2.2 Study design

This is an experimental before and after intervention study. Six non-Xhosa speaking health care workers completed a ten week basic Xhosa course. Before (pre-intervention) and after (post-intervention) the course, participants completed a questionnaire assessing their own perceived language skills and job satisfaction levels related to language ability. Before and after the course, Xhosa-speaking patients cared for by these health workers completed satisfaction questionnaires.

2.3 The Intervention

The course, by Siyavana Language Consultants cc, was run at Crossroads CHC on one afternoon a week. It is a Basic Xhosa Conversational course, requiring no prior knowledge of Xhosa, with ten 120 minute contact sessions. It develops basic speaking and listening skills in Xhosa. The course places a detailed emphasis on cultural diversity and includes interactive activities to encourage participation. Some reading and writing skills were also developed, but these were not assessed.

Five specific outcomes were assessed, which should have been achieved once the course had been completed. These include: being able to initiate and maintain conversation; ask for and

give information, explanations, directions and instructions; make and respond to offers and requests; express opinions and feelings and to listen and respond to oral text.

On completion of the course, learners should be able to communicate in social and work situations. Their vocabulary will still be limited and grammatical structures may be used inaccurately, as long as meaning is not obscured.

At the end of the course, the assessment consisted of two orals conducted by the course convener and one oral conducted externally with a Xhosa-speaking person in the workplace. A certificate was issued if these assessments were passed.

2.4 Development of the questionnaires

Two questionnaires were needed, one for the HCW participants and one for the patient participants. (See appendices A, B and C)

The Xhosa patient questionnaire was developed using questions similar to those used to rate patient satisfaction in a similar study by Mazor et al¹. This family satisfaction questionnaire had been validated previously.^{60 62}

The patient participant questionnaires were first written in English, and then translated by two lay people into Xhosa, then back-translated into English by an experienced research assistant to check the accuracy of the translation. A few alterations were made based on inconsistencies in the translations and in order to make the questions more easily understandable as advised by the Xhosa-speaking assistants and key informants. These were checked by a fourth Xhosa-speaking lay person for accuracy.

It has been found in Spanish-speaking populations that using a questionnaire with a Likert scale may be less accurate than it is for English-speaking respondents. In a study by Hayes and Baker, testing a satisfaction rating scale on English-speaking and Spanish-speaking

patients, they found that the Spanish-speaking patients tended to answer “good” to items more frequently than English-speaking patients did. These results brought into question the use of these types of response formats in evaluating Spanish-speaking patient’ satisfaction.⁶²

This poses the question of whether using this type of questionnaire for Xhosa-speaking patients would result in similar difficulties. Using a Likert scale in doing Client Satisfaction Surveys in South Africa is well-established in both the Health and other sectors, but there are no published studies formally assessing satisfaction scales in Xhosa-speakers. There was considerable debate amongst the Xhosa-speakers evaluating the questionnaire as to what the “correct” terminology was to describe relative grades of agreement with statements - a prerequisite for an accurate Likert scale. However, as the questionnaires were being administered both before and after an intervention, if there was a bias in the responses this would be present both before and after the study, so this should not alter whether there was a statistically significant difference between responses before the intervention and after.

The HCW questionnaires were developed by identifying themes of interest to the study, viz. perceived ability to communicate, job satisfaction, interpersonal relations and attitudes to language learning and interpreter use. Advice as to how to phrase questions assessing these themes was sought from supervisors and experts in the field of language learning.

2.5 Piloting the questionnaires

2.5.1 Health Care Worker questionnaires

The questionnaire for Health Care Workers was piloted on four HCWs not taking part in the medical Xhosa course. By analyzing their responses, and asking them questions about the questionnaire to assess their understanding of it, the validity and reliability of the questionnaires was tested. They were asked if they understood the questions, whether the questions seemed relevant to them in their practice and whether they were offended by any questions. Their answers were also checked for consistency. This was done by comparing the ratings given by the HCWs for similar questions and checking whether the ratings were similar. For example, question 2 asks if the HCW feels they are able to communicate

adequately with Xhosa-speaking patients and question 3 asks whether the HCW feels that they and their patients are not able to fully understand each other. One would expect that the answers should show a similar trend in that if they feel they are not able to adequately communicate with their Xhosa-speaking patients, then they would be likely to feel that they are not able to fully understand their Xhosa-speaking patients. There were no inconsistencies found in the pilot of the HCW questionnaires.

HCWs were also asked to comment on the questionnaires. One finding was that the respondents found that they had to concentrate in order to correctly answer the questions when there was a negative vs positive question, so as not to make a mistake between the two. (for example question 12 “In everyday practice, my job satisfaction is not affected by communication difficulties”). They stated that this may lead to errors and incorrect data if someone answers the questions in a rush. As a result of this, it was decided to print the negatives in bold so that it would be clearer and the negatives would not be missed.

Other than that, the respondents found the questions were clear and relevant. No inconsistencies were found when analysing the responses, so no further alterations to the questionnaires were needed.

2.5.2 Patient questionnaires

The patient questionnaires were piloted on four patients who had seen a non-Xhosa-speaking HCW. They completed the questionnaires with the assistance of a Health Promotion Officer working at Crossroads CHC in a similar manner to that which would be used by the research assistant gathering the final data. The patients were asked if they understood all of the questions, if any questions offended them and if they had any comments they wished to make about the questions. The results were analysed to find inconsistencies in the answering or if there were any problems with the understanding. No concerns were raised and all the patients confirmed that they understood the questions and had no concerns with answering them.

Feedback was also provided from the Health Promotion Officer administering the questionnaires. Two concerns were noted. Firstly, there was the concern that patients tended to answer that they could understand English or Afrikaans (question 1) when actually they could not speak the language. As participants answering that they could speak the languages, even if they couldn't, would be excluded from the sample, it was felt that this would not affect the results significantly. The initial proposal had been to only include patients who rated themselves either 1 or 2 on the scale, however after this advice, people rating themselves 3 were also included in the sample.

Secondly, concerns around confidentiality were raised by a few patients. Despite taking informed consent (see Appendices E and F), they were concerned that their answers would be given to the HCW they had seen and they feared it might negatively affect their treatment in the future. Extra measures were therefore taken to address this issue during recruitment and signing consent.

2.6 Population and sampling

There were two aspects of the study: the assessment of the HCWs' perceptions of their abilities and job satisfaction related to language before and after completing a ten week basic Xhosa course and patients' satisfaction survey and assessment of HCW's language proficiency before and after the intervention. Therefore two populations were sampled.

2.6.1 Health Care Worker Participants

Population 1, consisting of non-Xhosa-speaking Health Care Workers working at Primary health care facilities in Cape Town, South Africa were offered the opportunity to participate in the basic Xhosa course. HCWs included were working at Community Health Centres in Crossroads, Guguletu, Inzame Zabantu, Mitchell's Plain and Nolungile. One of the HCWs was working as an intern at Mitchell's Plain CHC when she signed up for the course, however by the time the pre-course questionnaires were administered, she had rotated to

Mitchell's Plain District Hospital, which is a level one hospital with in-patient facilities. She was not excluded from the study based on her move to an inpatient facility.

Purposive sampling was used to gather data from HCWs as this was deemed the best method of getting access to HCWs signed up for the Xhosa course. All 23 HCWs signed up for the course were offered the option to participate and agreed to participate in this study. From the 23 who signed up, 20 completed the pre-course questionnaire. However, only six completed the entire ten week course and met the criteria to pass the course. Therefore the HCW sample size was reduced to six.

2.6.1.1 HCW Demographics

Age

The age range was from 26 to 28 years old, with a mean of 26,6 years.

Gender

Four females and two males completed the course.

Occupation

Four of the participants were doctors, one was a dietician and one was a physiotherapist.

Home language

The home language was English for five of the six (83%), with one having Afrikaans as his/her home language.

2.6.2 Patient Participants

Population 2, the patients, was selected through a non-probability sampling strategy that relied on convenience sampling of patients who had been attended to by each of the HCWs participating in the study.

The research assistant approached patients waiting to see the HCW and asked them if they would be willing to participate in a study. If they showed interest, they were asked to rate their English or Afrikaans abilities by completing the statement: “I can understand English or Afrikaans” using one of five options that ranged from ‘*completely cannot*’, which scored 1, to ‘*I am able to*’, which scored a 5 on the Likert scale. Patients who rated themselves 1 to 3, which indicated a poor understanding of English or Afrikaans, were then asked to come to an interview room to complete the questionnaire after consultation with the HCW.

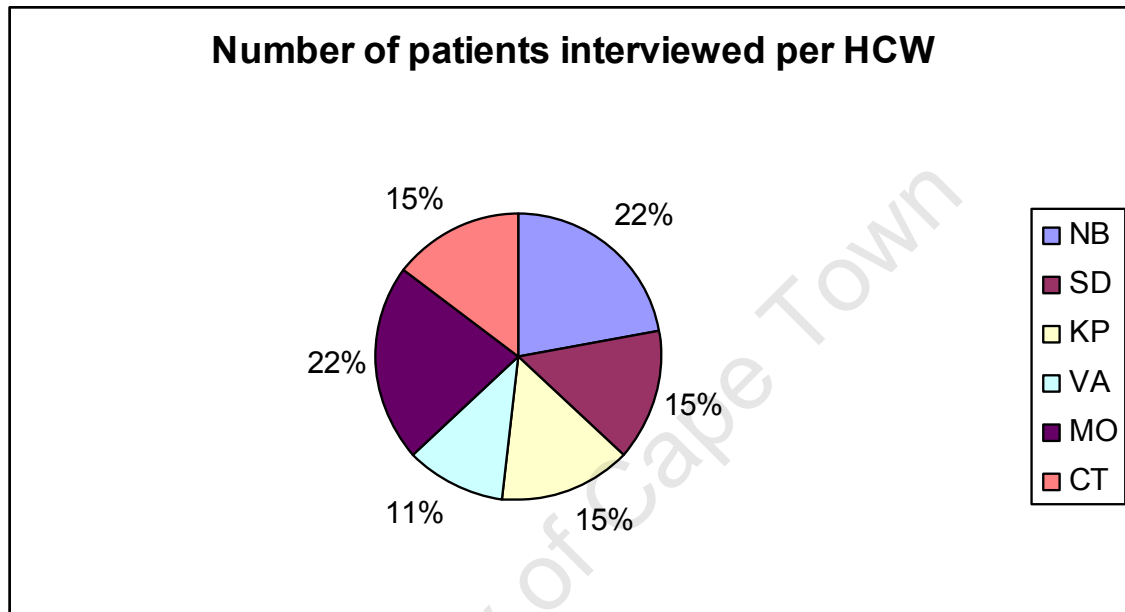
A minimum of three and a maximum of six Xhosa speaking patients who had seen the HCW were given the opportunity to answer the questionnaire after having seen the HCW. A total of 27 patient interviews were included in the pre-intervention and post-intervention samples. A minimum of three patients per HCW was needed in order to be able to detect statistically significant differences in the data before and after the course. A maximum of six patients per HCW was chosen in order to not have the data skewed towards one particular HCW's results.

One of the HCW participants was working at a District Hospital, so the patients sampled for her interviews were in-patients and not out-patients as were the rest of the sample.

After the Xhosa course was completed, the same process was followed for patient interviews. This time, the number of patients which had been interviewed for each HCW prior to the course was matched, so if there were six patient questionnaires from one particular HCW from the pre-course sample, then six were again chosen for the post-course sample, and if there were four from the pre-course sample, then four were again chosen.

Figure 1 demonstrates the number of patients interviewed for each HCW. Each HCW is denoted by initials as seen.

Figure 1: Number of patients interviewed per HCW



2.6.2.1 Patient Demographics

Age

Distributions of the pre-intervention group (Pre) and the post-intervention group (Post) of patients are shown below on **figure 2**. Ages of respondents in the Pre group ranged from 23 to 77 years with a median age of 46 years. In the Post group the age ranged from 16 to 67 years, with a median age of 55 years. The age distributions did not differ significantly between the pre and post course samples as tested with the Kruskal-Wallis test, giving a p-value of 0.243

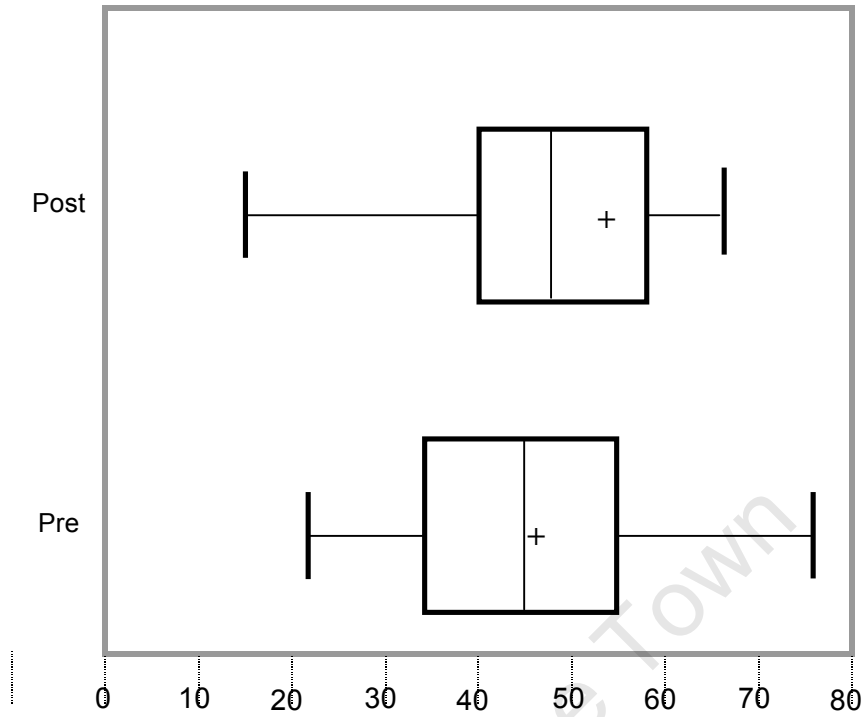


Figure 2: box plot comparison: pre and post assessment groups of patients.

	Pre	Post
<i>0th percentile</i>	23	16
<i>25th percentile</i>	35	40
<i>50th percentile / median</i>	46	55
<i>75th percentile</i>	54.5	57.5
<i>100th percentile</i>	77	67
<i>IQR Inter-quartile range</i>	19.5	17.5
<i>Mean</i>	45.40741	48.81481
<i>Median location</i>	14	14

No outliers were found in the data

Figure 3: Age range of patients pre and post

Gender

There were 7 males and 20 females interviewed in the pre-course sample and 8 males and 19 females in the post course sample. These figures did not differ significantly as tested with chi-squared test giving a p value of 0.6734.

Table 1: Gender distribution

Category	Pre-course	%	Post-course	%
Male	7	26%	8	30%
Female	20	74%	19	70%

2.7 Measurement and instruments

On the conventional Likert scale, a score of 1 indicates the subject “strongly disagrees” with the statement and a score of 5 indicates the subject “strongly agrees” with the statement. This convention was maintained for all the questionnaires.

For the purpose of analysis and pooling of results where statements could be phrased in the positive or negative, some statements were analysed with “reverse” allocation, where “strongly disagree” was allocated a value of 5 and “strongly agree” a value of 1. This was done for statements where the statement reflected a “negative” or “adverse” outcome rather than a “positive” or “desirable” outcome. In this way, a low score during analysis always reflected a “negative” or “undesirable” outcome, and high scores reflected “positive” or “desirable” outcomes. Thus when analysing pre- and post-intervention scores a reduction in the score indicate adverse outcomes and increase in the score reflects positive outcomes.

2.8 Data collection

2.8.1 Health Care Worker participants

HCWs who had signed up for the Xhosa course offered by the MDHS were phoned, or approached in person and given the option to participate in the research. This was done by the researcher. The study was briefly explained to the HCW and if they agreed to participate, they were given an informed consent form to read through and sign. If they had any questions about the study, these were answered by the researcher. Once they had read and signed the consent form, they were asked to complete the pre-course HCW questionnaire.

After completing the course, the six successful participants were again asked to fill out the same questionnaire and the results were then analysed to detect any differences in the responses before and after completing the course.

Due to the high drop out rate from the course, an additional questionnaire was designed to determine some of the reasons for the HCWs dropping out. (appendix G) This was administered to seven of the fourteen participants which had dropped out. These seven were chosen by convenience. This was not part of the original study design, but was performed to add understanding to the phenomenon of the high drop out rate.

2.8.2 Patient participants

A Xhosa-speaking community member working part time at Crossroads CHC as a cleaner was approached and asked to assist with the research. She has completed standard 9 education and passed English. She had not worked as a research assistant previously. She was undergoing training in Home Based Caring, but had no further training. She was trained in how to take the informed consent and how to administer the questionnaire by the researcher. She collected data from patients who had seen HCW participants which worked

at Crossroads CHC (4 HCWs) and Inzame Zabantu CHC (1 HCW). One of the HCWs worked at a District Hospital and a Xhosa-speaking nurse assisted with administering the patient questionnaires before the course started. She was given written instructions on how to choose the patient participants and the Family Physician working at the hospital also assisted with verbal instructions on the process.

The HCW participants were informed that any patients they saw before the course was due to begin might be interviewed, but they would not know either before or after which of their patients had been interviewed to avoid prejudice or possible bias. The patients being interviewed were not told whether the HCW had completed the Xhosa course or not.

After the Xhosa course was successfully completed by the six HCWs, the same research assistant was used to collect data from patients seen by these HCWs in the same way as was done prior to the course. The number of patients interviewed for each HCW was matched to the number who had been interviewed for this HCW prior to the intervention. This time, no additional people were used to assist with the data collection.

2.9 Data analysis

The Student's paired t-test was used to analyse the Likert scores of the HCWs pre and post intervention. For each question the total of the scores of all the HCWs were summed and compared pre-and post intervention but for questions phrased in the negative, "reverse" allocation of values were applied to the Likert scores.

For the patient participants, the Student's unpaired t-test was used to analyse the Likert scores as different patient participants were used for the "before" and "after" samples. Apart from this the analysis was similar, with the scores for each question being summed and then analysed.

To detect any statistically significant differences between the patient before and after samples in terms of age, the Kruskal-Wallis test was used. To test for statistically significant differences between the two samples' genders before and after, the chi-squared test was used.

2.10 Ethical considerations

Permission was verbally obtained from managers in the MDHS, including Facility Managers at the facilities where the research was conducted and the Sub-district Manager. Permission was also gained from the head of the Skills Development department, who outsources the Xhosa course, and from Siyavana Language Consultants cc that runs the course. Written informed consent was taken from all the participants. (See Appendices D, E, and F) The study complies with the Helsinki Declaration of 2000.

Health Care Worker Participants

The potential risks to the HCW study participants were that they might feel uncomfortable, or threatened on being questioned about language difficulties, and about what their interpersonal relationships at work were like as a result of language differences. They could potentially also have felt threatened having patients that they have seen assess them in terms of their cultural sensitivity and communication. Despite this, all HCWs signed up for the Xhosa course readily agreed to participate in the study.

Confidentiality was assured, both verbally and in the written consent form which each HCW signed. (See appendices D and E) All responses were kept completely confidential. Only the researcher had access to the results after the research assistant had completed the patient questionnaires and submitted them to the researcher.

Participating in the Xhosa course required a time commitment from the HCWs. Often, Health Care Workers find it difficult to have enough time in their day to do their clinical and administrative work, so even asking them to participate by answering the

questionnaire required a time commitment from them. The course itself required a time commitment of two hours a week for ten weeks and this was a large factor in the drop-out rate from the course.

One of the potential benefits is that if the Xhosa course is an effective, user-friendly way of learning Xhosa, the participants could potentially find their work becoming easier and more rewarding. If they can communicate better with their patients and not need to utilize other Xhosa-speaking staff members for interpretation as frequently as before the course, then this will be of benefit to the participants. An objective assessment proving the Xhosa classes have been of benefit could lead to the HCWs having a sense of pride and achievement on completion of the course. If HCW subjects indicated they were interested in the results, a brief written report was fed back to them, however no details about individual medical participants was included.

Patient Participants

Patient satisfaction may be improved if there is better communication between HCW and patient. The patients also may feel more valued if they are given the opportunity to express their opinions when being asked to participate in the study.

There was the problem of a time commitment asked of the patients. The informed consent process and answering the questionnaire did not take longer than five to seven minutes for most patients, but after having waited for a long time to see the HCW, patients can be in a hurry to move on to the next point of service or to leave. They were assured that their place in the queue would not be jeopardized by them participating in the study. Most of them were either leaving the CHC or going to the pharmacy after having seen the HCW participant. If they were going to the pharmacy, their folder was placed in a pile of folders of patients awaiting medicine so that answering the questions did not prolong their waiting time at the pharmacy.

The patients could potentially have felt threatened by being asked to assess the HCW who had just helped them and could potentially not have felt free to answer the questions honestly.

They were assured of complete confidentiality. Their particular answers were not fed back to the HCW they assessed, and were not used to jeopardize the level of care they received from the CHC. In addition, the informed consent and questionnaires were administered in a private area where they could not be overheard or seen by any Health Care Workers working in that facility.

Unfortunately, the recruitment of the patient participants had to be done in the open waiting area. This, including self-rating of their language abilities, was not entirely confidential. Possibly some patients may have felt uncomfortable answering this question in front of other patients.

University of Cape Town

Chapter 3: Results

3.1 Health Care Worker Results

Overall, of the 23 Health Care Workers signed up to do the Xhosa course, only 6 completed the ten week program and successfully passed the oral and written tests at the end of the course. Only the pre and post course data from these six HCWs has been used.

3.1.1 Perceived ability to communicate with Xhosa-speaking patients

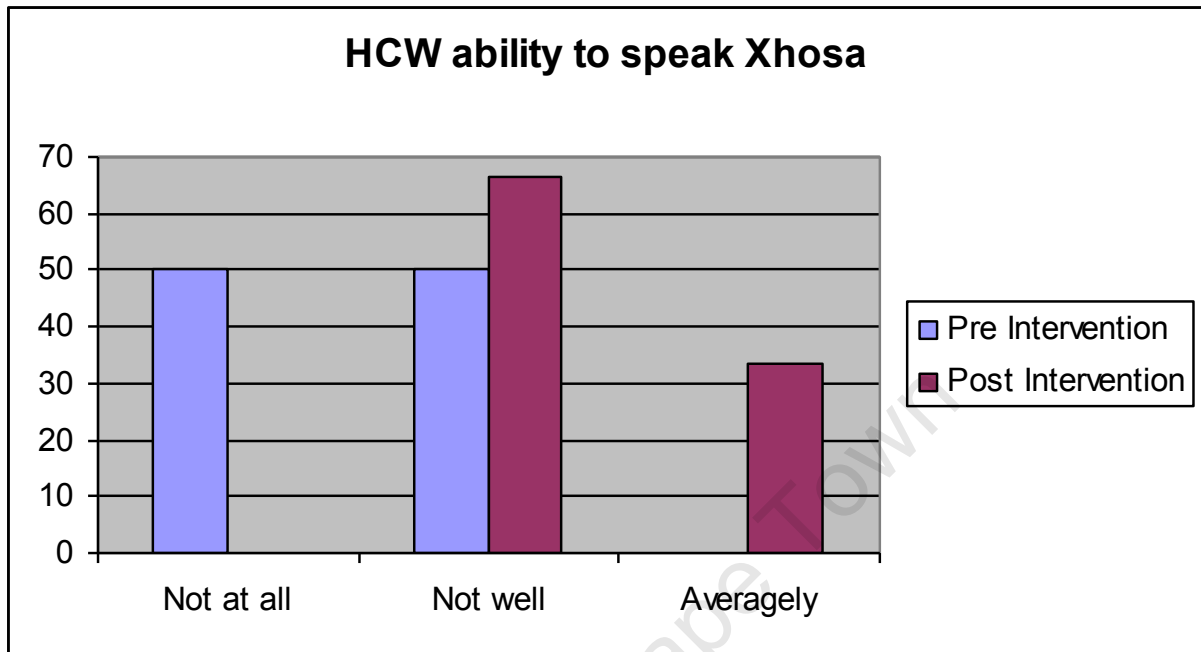
Questions 1 to 3 (see Appendix A) were designed to assess the HCWs self-perceived ability to communicate with Xhosa-speaking patients. All questions were answered on a Likert scale. The analysis used a score of 1 as the most negative outcome and a score of 5 as the most positive outcome.

Ability to speak Xhosa

Question 1 asked the respondent to rate their ability to speak Xhosa on a scale from “not at all” to “very well”. Before the course, 50% of respondents rated themselves as not being able to speak Xhosa at all, and 50% completed the statement “I can speak Xhosa...” with “not well”. After completing the course, 33% rated their ability to speak Xhosa as average, whilst the remaining 66% rated themselves at “not well”. Only one respondent did not rate him/herself as having improved after completing the course.

The results showed a significant difference in their self-perceived ability to speak Xhosa before and after the course, with an average improvement overall. The mean score prior to completing the course was 1.5 (95% CI 0.9251 – 2.075; SD 0.548) and after the course was 2.33 (95% CI 1.791 – 2.875; SD 0.516) with a p value of 0.004.

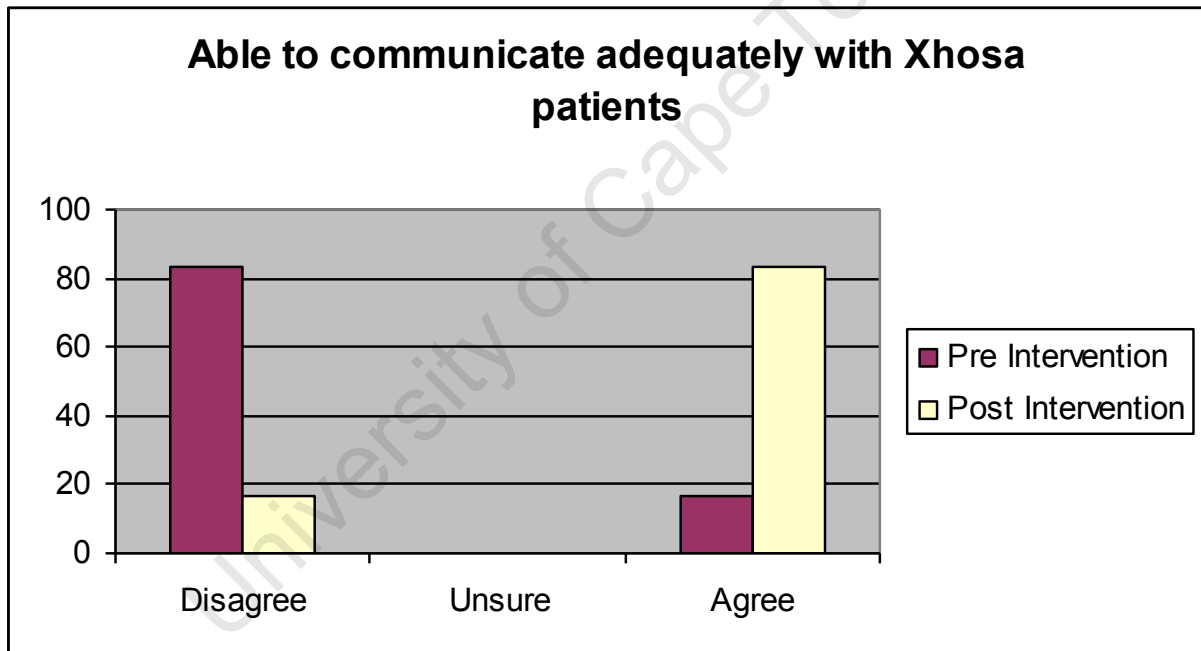
Figure 4: HCW ability to speak Xhosa



Question 2 asked whether the respondents felt that they were able to communicate adequately with Xhosa-speaking patients. A significant improvement was also shown between their ratings before and after the course. The mean rating pre-course was 2 (95% CI 0.8502 – 3.150; SD 1.10) and post course was 3.67 (95% CI 2.810 – 4.524; SD 0.816) (p=0.011).

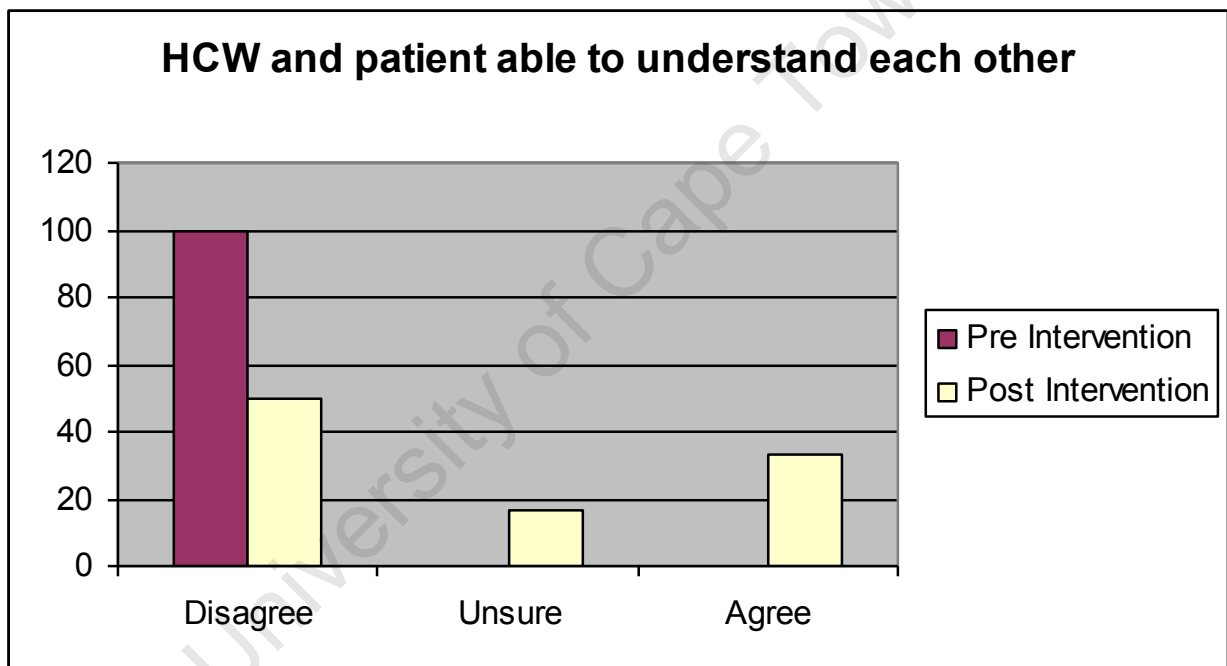
For the following graphs, the results are grouped with responses of 1 and 2 together being disagree (or not often), 3 being unsure, and 4 and 5 being agree (or often).

Figure 5: Able to communicate adequately with Xhosa patients



Question 3 assessed whether the HCWs felt that they and the patients were able to fully understand each other as a result of language difficulties. The statement was posed in the negative as: “I often feel that my patients and I am not able to fully understand each other because we do not speak the same language”. For the purposes of the analysis, the scoring was reversed. The pre-intervention response mean was 1.5 (95% CI 0.6218 – 2.378; SD 0.837) and the post intervention response mean was 3 (95% CI 1.672 – 4.328; SD 1.26), showing a significant improvement. (p=0.017)

Figure 6: HCW and patient able to understand each other



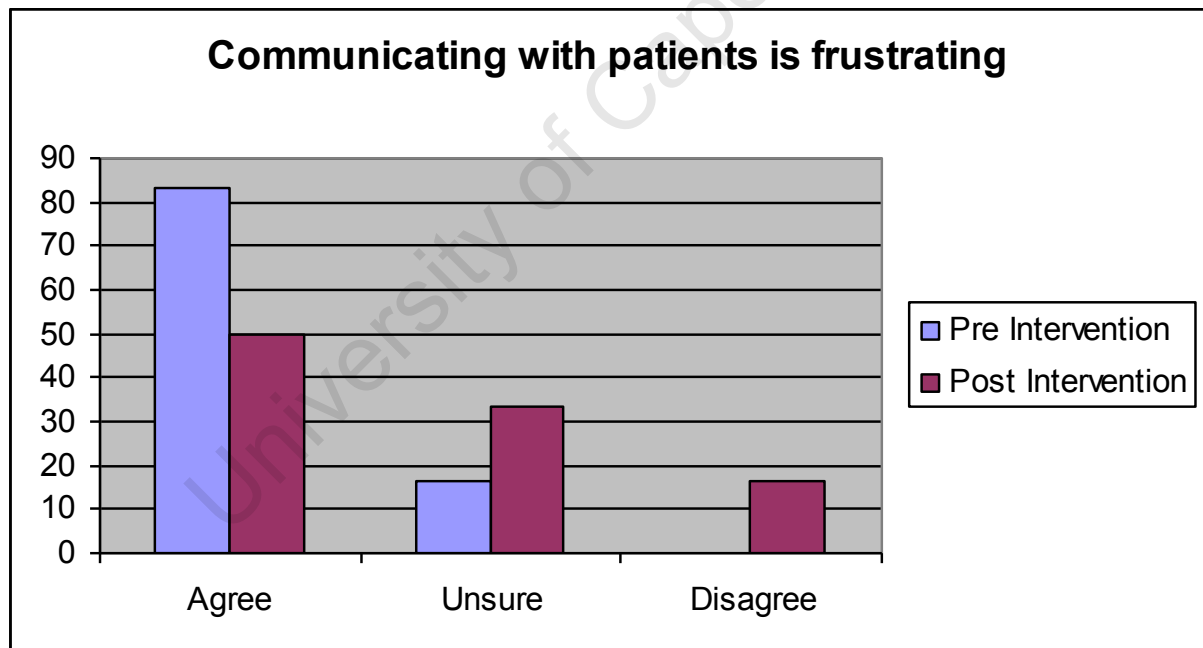
When the questions were analysed as a group, comprising questions 1-3, assessing the HCWs’ self-perceived ability to communicate with Xhosa-speaking patients, there was a significant improvement (p=0.000) for the difference overall between the 3 questions’ responses pre and post intervention. The mean pre-course was 1.67 (95% CI 1.249 - 2.084; SD 0.840) and the post-course mean was 3 (95% CI 2.488 – 3.512; SD 1.03).

3.1.2 Job satisfaction related to communication

Questions 8, 9, 11 and 12 assessed the HCWs job satisfaction related to their communication difficulties.

Question 8, asking whether the HCW found it frustrating trying to communicate with Xhosa-speaking patients showed a significant difference, with an improvement ie a decreased level of frustration. For the purposes of the analysis, reverse scoring was used for this question. Mean pre-intervention was 1.83 (95% CI 1.043 – 2.623; SD 0.753) and post was 2.67 (95% CI 1.810 – 3.524; SD 0.816) with a p value of 0.042.

Figure 7: Communicating with patients is frustrating



Question 9 stated “communicating with Xhosa-speaking patients is not a difficult aspect of my job”. There was no difference at all between the pre and post course responses. Mean was 2.17 (95% CI 1.272-3.061; SD 0.983) p=1.

Question 11 asked whether language difficulties prevent the HCW from enjoying their job to the full. There was an improvement from the pre to the post-intervention group, but this was not significant. Mean pre 2.83 (95% CI 1.438-4.228; SD 1.33) and post mean 3.33 (95% CI 2.062-4.604; SD 1.21) $p=0.415$.

Question 12 asked whether job satisfaction was affected by communication difficulties. There was no difference between the pre and post responses, with the mean lying at 2.67 (95% CI 1.643-3.690 SD 1.21).

Overall, the job satisfaction ratings did not improve significantly after the Xhosa course was completed. Mean pre 2.38 (95%CI 1.912-2,838; SD 1.10) post mean 2.54 (95% CI 2.129-2.954; SD 0.977).

3.1.3 Interpersonal relationships at work relating to communicating with Xhosa-speaking patients

Questions 5 and 13 were designed to assess the HCWs interpersonal relations with Xhosa-speaking staff.

Question 5 assessed how easy the HCWs found it to find people to translate for them at work. The responses showed a slight improvement in that it was easier to find interpreters after completing the course, but this was not significant. Mean pre 3.67 (95% CI 2.749-4.584; SD 1.03) and mean post 3.83 (95% CI 2.916-4.751; SD 0.983) $p= 0.780$.

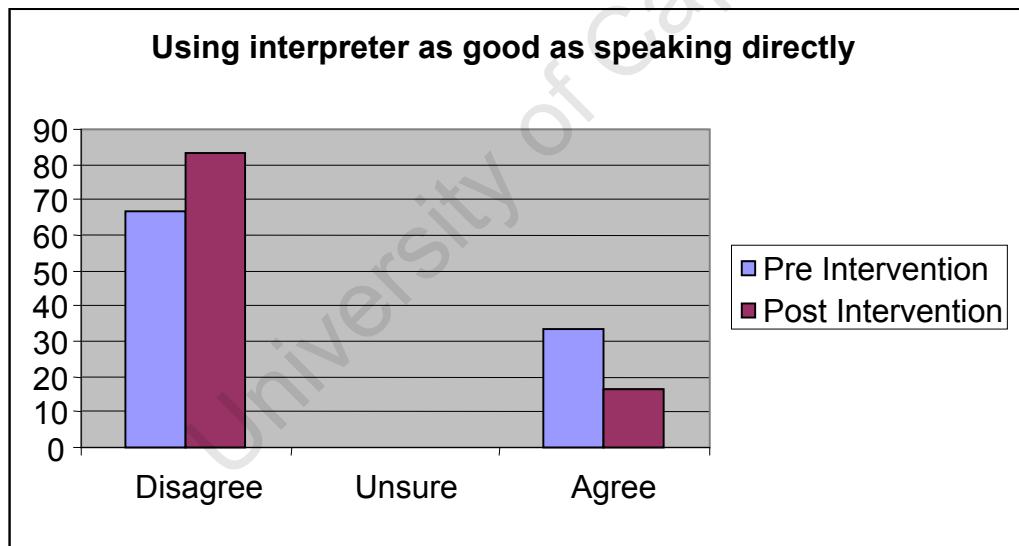
Question 13 asked whether the HCW felt that their inability to speak Xhosa negatively affected their interpersonal relationships with Xhosa-speaking staff at work. Again, there was a non-significant improvement between the pre and post-course responses. The responses ranged from strongly disagree to strongly agree for both pre and post questions. Mean pre 2.83 (95% CI 0.9075-4.759; SD 1.83) mean post 3.00 (95% CI 1.516-4.484; SD 1.41) $p=0.809$.

The overall grouping of the two staff-relations questions showed a small, non-significant improvement between the pre and post responses. Mean pre 3.25 (95% CI 2.307-4.193; SD 1.48) and mean post 3.42 (95% CI 2.629-4.205; SD 1.24) $p=0.615$.

3.1.4 Use of interpreters

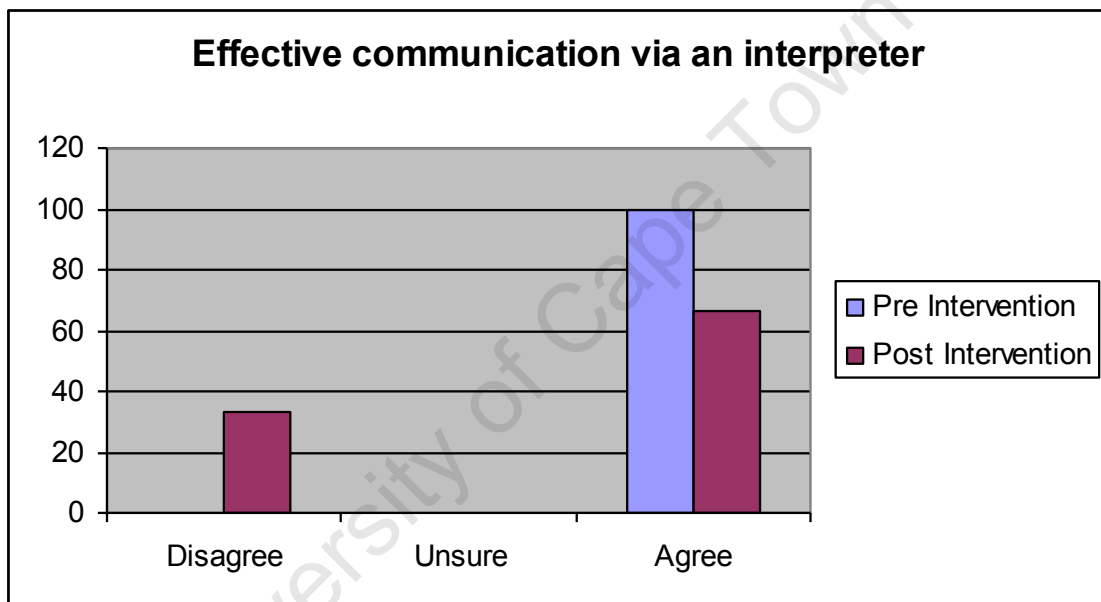
Question 6 stated “When I use a interpreter to speak with a patient, I feel that this is as good as if I could speak to them directly”. There was not a significant difference in the response pre and post intervention, but more of the respondents disagreed with the statement after the course. 67% disagreed pre and 83% disagreed post. Mean pre 2.33 (95% CI 0.8993-3.767; SD 1.37) and mean post 2.17 (95% CI 1.135-3.199; SD 0.983) $p=0.695$.

Figure 8: Using a interpreter as good as speaking directly



Question 7 states “I am able to effectively communicate with patients via an interpreter”. For this question too, there was no statistically significant difference in the HCW responses before and after the course, but fewer respondents agreed with the statement after the course, with 100% agreeing pre course and 67% agreeing post-course. Mean pre 4.17 (95% CI 3.738-4.595; SD 0.408) and mean post 3.17 (95% CI 1.772-4.562; SD 1.33) p=0.111.

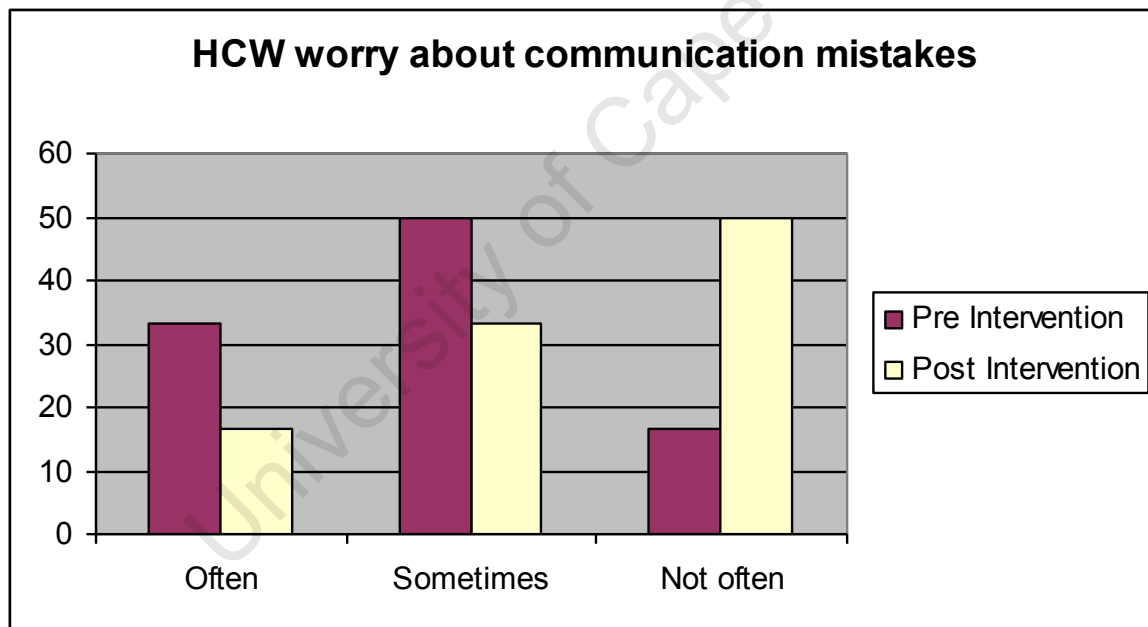
Figure 9: Effective communication via an interpreter



3.1.5 Effect on performance

Question 4 asked whether the HCW worried about making mistakes due to communication difficulties. This question was analysed using “reverse” allocation. The post mean was higher than the pre mean, implying less concern about errors, but it did not reach the level of significance. Mean pre is 2.83 (95% CI 2.043 – 3.623; SD 0.753) and post is 3.50 (95% CI 2.399 – 4.601; SD 1.05) p: 0.175. For the purpose of this graph, “never” and “occasionally” in the Likert scale are reflected on the right as “not often”, sometimes remains central and “often” and “all the time” on the Likert scale are reflected on the left as “often”.

Figure 10: HCW worry about communication mistakes



3.1.6 Value of learning Xhosa

All respondents agreed that it is of benefit to learn Xhosa both before and after the course, though one respondent’s response changed from “partly agree” pre course to “strongly agree” post course. Mean pre 4.83 (95% CI 4.405-5.262; SD 0.408) and mean post 5 (95% CI 5; SD 0) p=0.363.

TABLE 2: HCW questions which showed significant improvement

QUESTION	MEAN PRE	95% CI	SD	MEAN POST	95% CI	SD	P-VALUE
1. Speak Xhosa	1.5	0.9251-2.075	0.548	2.33	1.791-2.875	0.516	0.004
2. Able to communicate	2	0.8502-3.150	1.10	3.67	2.810-4.524	0.816	0.011
3. Fully understand	1.5	0.6218-2.378	0.837	3	1.672-4.328	1.26	0.0017
8. Communication not frustrating	1.83	1.043-2.623	0.753	2.67	1.810-3.524	0.816	0.042

TABLE 3: HCW questions which did not show significant improvement

QUESTION	MEAN PRE	95% CI	SD	MEAN POST	95% CI	SD	P-VALUE
4. Worry re mistakes	2.83	2.043-3.623	0.753	3.5	2.399 – 4.601	1.05	0.175
5. Find interpreter easy	3.67	2.749-4.584	1.03	3.83	2.916-4.751	0.983	0.780
6. Interpreter as good as speak direct	2.33	0.8993-3.767	1.37	2.17	1.135-3.199	0.983	0.695
7. Effective communication via interpreter	4.17	3.738-4.595	0.408	3.17	1.772-4.562	1.33	0.111

9. Communication not difficult	2.17	1.272- 3.061	0.983	2.17	1.272- 3.061	0.983	1
10. Learning Xhosa of benefit	4.83	4.405- 5.262	0.408	5.00	5.00- 5.00	0.00	0.363
11. Enjoy job	2.83	1.438- 4.228	1.33	3.33	2.062- 4.604	1.21	0.415
12. Job satisfaction not affected	2.67	1.643- 3.690	1.21	2.67	1.643- 3.690	1.21	1
13. Relationship with staff not affected	2.83	0.9075- 4.759	1.83	3.00	1.516- 4.484	1.41	0.809

TABLE 4: HCW results grouped according to themes

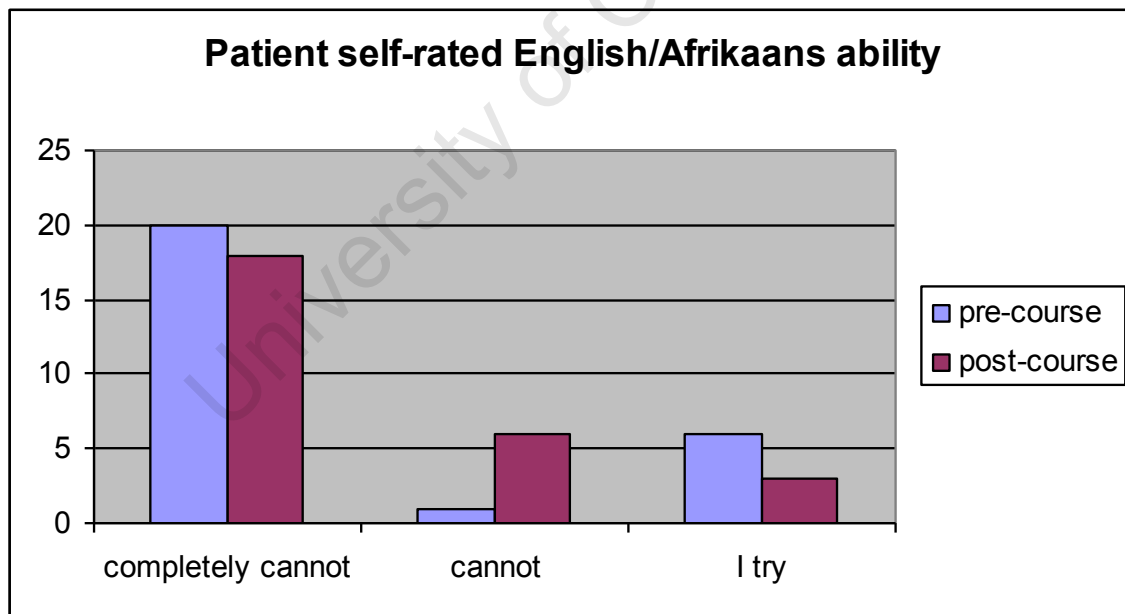
Perceived ability to communicate group	1.67	1.249- 2.084	0.840	3	2.488- 3.512	1.03	0.000
Job satisfaction group	2.38	1.912- 2.838	1.10	2.54	2.129- 2.954	0.977	0.517
Staff relationship group	3.25	2.307- 4.193	1.48	3.42	2.629- 4.205	1.24	0.615

3.2 Patient results

3.2.1 Self-rated ability to speak English or Afrikaans

The patients were asked to rate their ability to speak Afrikaans or English on a Likert scale from “completely cannot” to “I am able to”, with “completely cannot” being given a score of 1 and “I am able to” being given a score of 5. Only those with a score of 1, 2 or 3 were interviewed. The self-rated language ability pre-course was 1.48 (95% confidence interval 1.181 – 1.782, standard deviation 0.849) and post-course was 1.44 (95% CI 1.144 – 1.745, SD 0.698) and the P value was 0.86, showing that these two samples did not differ significantly.

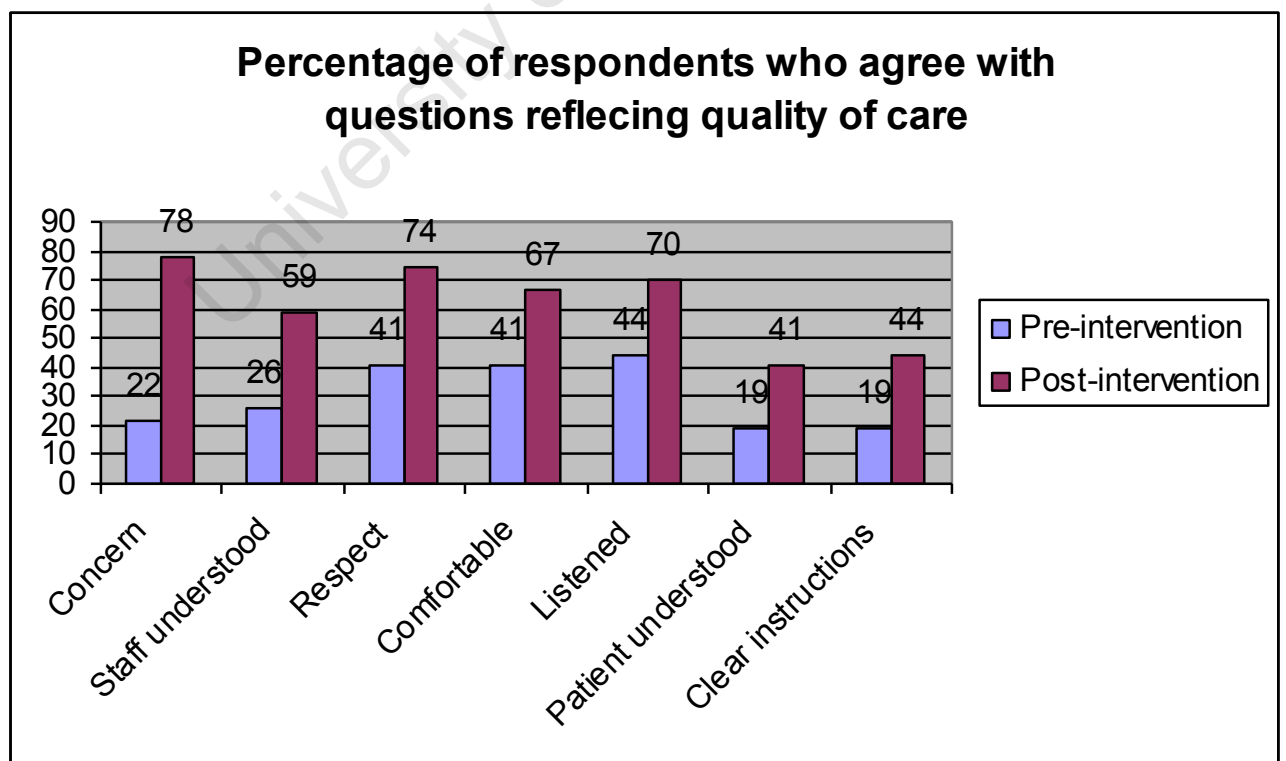
Figure 11: Patient self-rated English/Afrikaans ability



3.2.2 Patient satisfaction survey

There were seven questions asked of the patients to assess the quality of care they perceived receiving from the HCW. They were asked whether they thought the HCW was concerned about them, was respectful, whether the HCW made them feel comfortable, whether they felt the HCW listened to them and understood them and whether they understood the HCW and found the HCW's instructions to be clear. They were given seven statements which they had to rate their agreement with from "strongly disagree" to "strongly agree" on a 5 point Likert scale, with a score of 5 being strongly agree and a score of 1 being strongly disagree. In all 7 areas, the patients were more likely to agree with the statement about the HCW they had seen (reflecting improved quality of care) after the HCW had completed the course.

Figure 12: Percentage of respondents who responded "partly agree" and "strongly agree" to questions reflecting quality of care



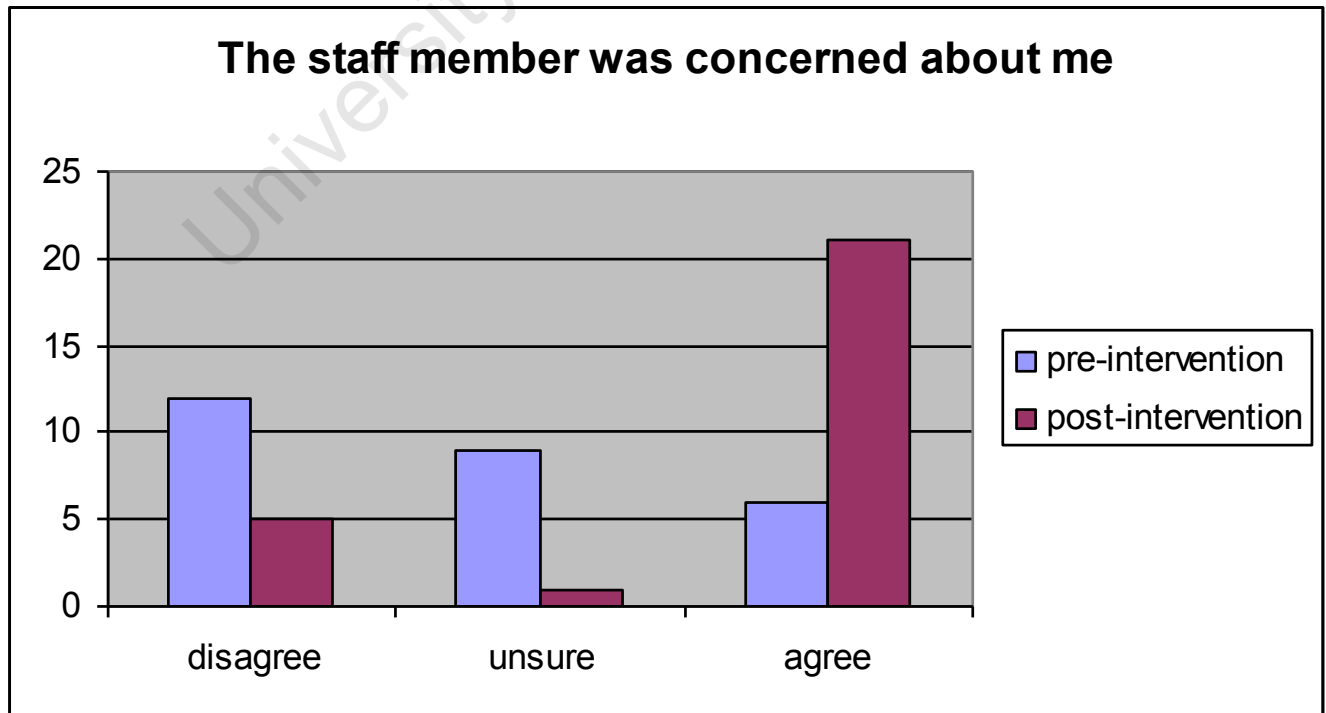
All the results showed a statistically significant improvement after the Xhosa course was completed.

In the following figures, the responses have been grouped with 1 and 2 (strongly disagree and partly disagree) being grouped as disagree and 3 and 4 (partly agree and strongly agree) being grouped as agree. A score of 3 remains as unsure.

3.2.2.1 Concern

Question 1 asked whether the patient felt that the HCW they had seen was concerned about him/her. The mean pre-intervention was 2.72 (95% CI 2.254 – 3.154; SD 1.23) and post was 3.52 (95% CI 3.069 – 3.968; SD 1.09). The difference was shown to be significant ($p=0.013$). In addition, the respondents were more likely to agree with the statement “The staff member who helped me today was concerned about me” after the HCW had completed the course, with 22% agreeing with the statement before the course and 78% agreeing after the course.

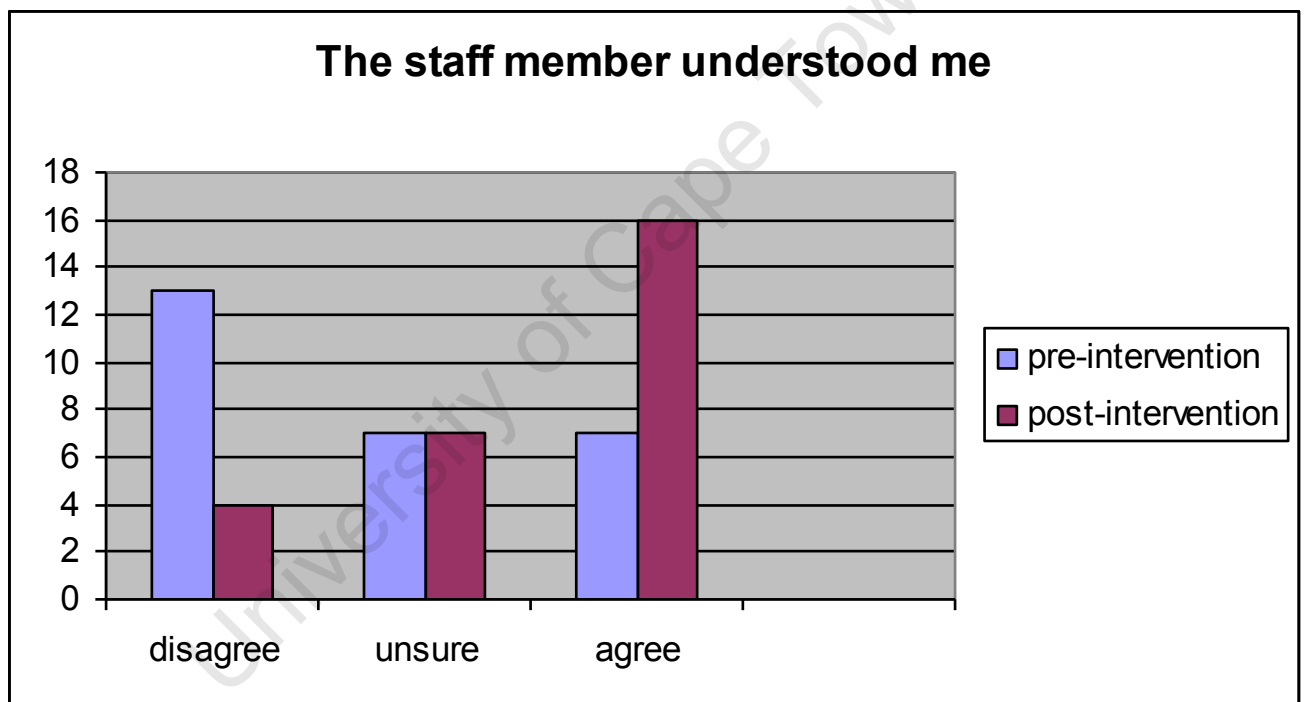
Figure 13: The staff member was concerned about me



3.2.2.2 Understanding

Question 2 asked the patients to rate their agreement with the statement “The HCW I saw today understood my problem.” The mean pre intervention was 2.59 (95% CI 2.188 – 2.998; SD 1.08). The mean post intervention was 3.44 (95% CI 3.039 – 3.849; SD 1.01). This improvement was significant with a p value of 0.0043. Prior to the HCW completing the course, 26% of the patients agreed with the statement, and after the course, 59% agreed.

Figure 14: The staff member understood me



3.2.2.3 Respect

Question 3 asked the patients to assess the HCWs respectfulness. The mean pre course was 3.07 (95% CI 2.727 - 3.421, SD 1.14). The post-course mean was 3.81 (95% CI 3.468 – 4.162, SD 0.557). The p value was 0.0038, showing a significant improvement in the responses. Forty one percent of the patients agreed with the statement “The staff member who helped me today was respectful” before the HCW completed the course and 78% agreed after the course was completed.

Figure 15: The staff member respected me



3.2.2.4 Making the patient comfortable

Question 4 was “The staff member who helped me today made me feel comfortable”. The mean before the course was 3.04 (95% CI 2.631 – 3.443; SD1.13) and after the course was 3.59 (95% CI 3.187 – 3.999; SD 0.971), with a p value that was not significant, at 0.058. The percentage of patients which agreed with the statement before the course was 41% and after the course was 67%.

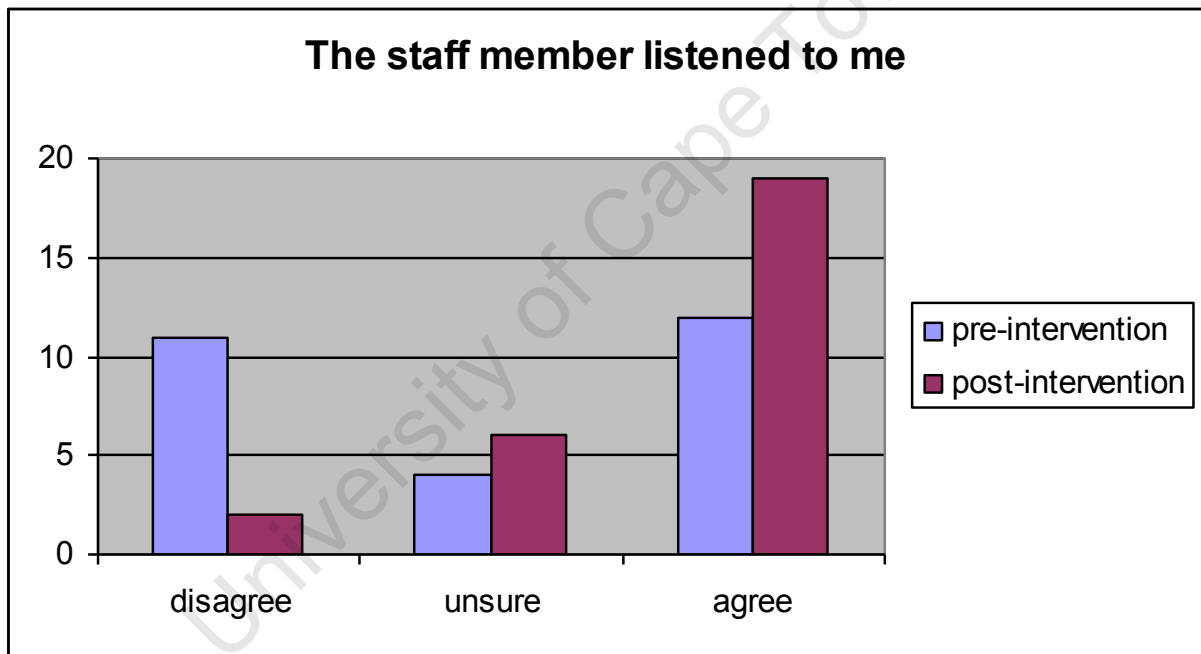
Figure 16: The staff member made me feel comfortable



3.2.2.5 Listening

Question 5: The statement, “The staff member who helped me today listened to me” showed a significant improvement in patient responses from before the course to after the course. The mean before was 3.00 (95% CI 2.609 – 3.391; SD 1.21). The mean after the course was 3.74 (95% CI 3.350 – 4.131; SD 0.764). (p= 0.01) Pre-intervention, 44% of the patients agreed with this statement, and post-intervention, 70% agreed.

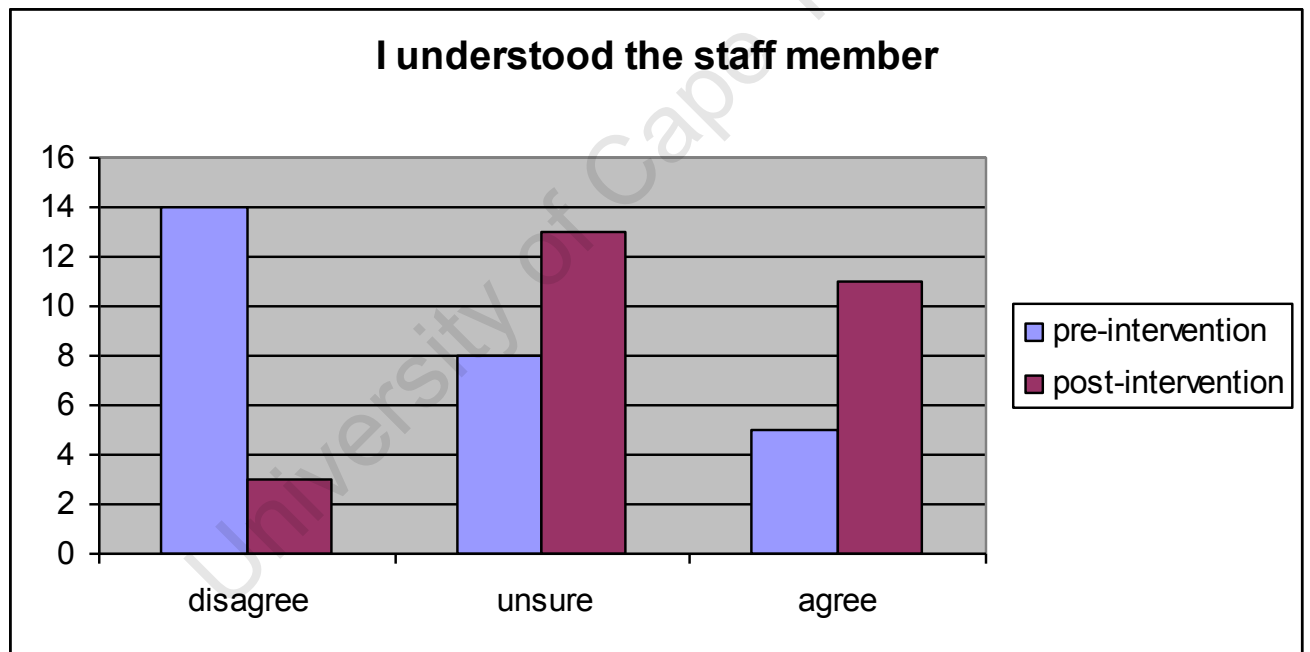
Figure 17: The staff member listened to me



3.2.2.6 Patients' understanding

Question 6 was “I understood everything which the staff member who helped me today said”. Pre-intervention, the response mean was 2.52 (95% CI: 2.145 – 2.892 and SD 1.19). Post-intervention, the mean was 3.33 (95% CI 2.959 – 3.707 and SD: 0.679). This was a significant improvement, with a p value of 0,003. 19% of the patients agreed with the statement before the course, and 41% agreed after the course, whilst 52% disagreed with the statement pre-course and only 11% disagreed post-course.

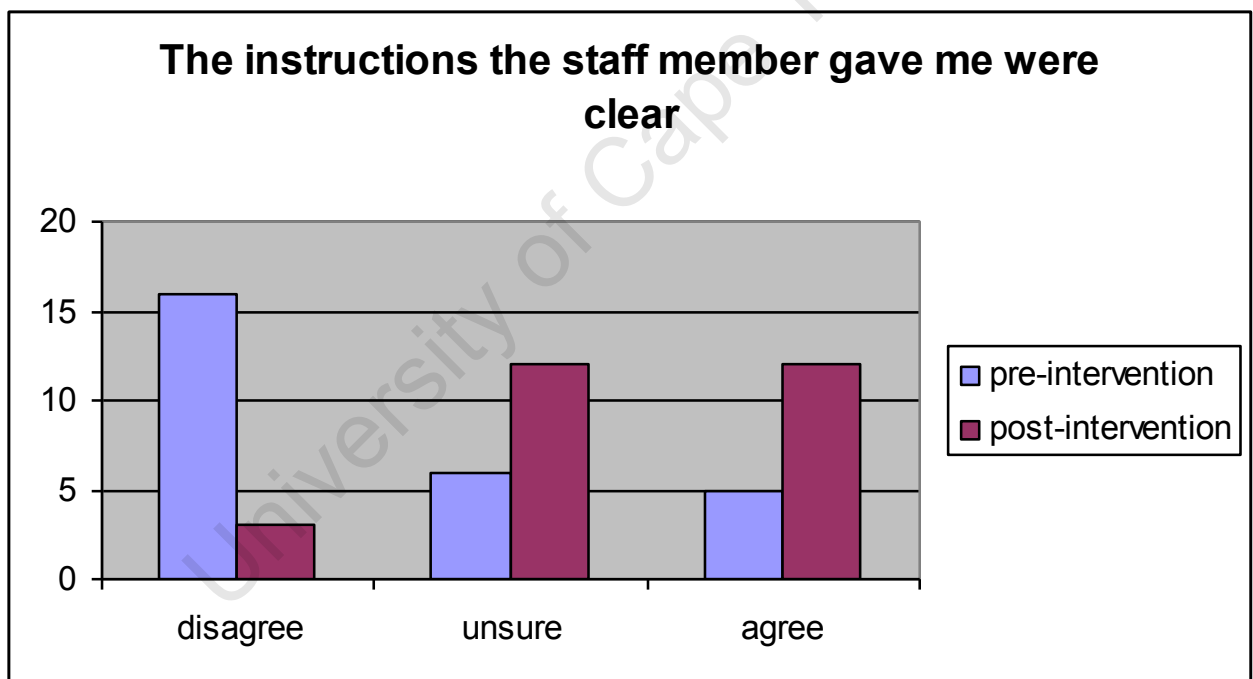
Figure 18: I understood the staff member



3.2.2.7 Instructions were clear

Question 7 was “The instructions given to me by the HCW helping me today were clear”. Before the course, the response mean was 2.33 (95% CI 1.962 – 2.704, SD 1.18) and after the course, it was 3.33 (95% CI 2.962 – 3.704 SD 0.679), p value was 0.000. Pre-intervention, 19% of patients agreed with the statement and post-intervention, 44% agreed. The percentage of patients who disagreed with the statement before the course was 59% and after the course was 11%.

Figure 19: The instructions the staff member gave me were clear



Chapter 4: Discussion

4.1 Health Care workers' experiences related to learning Xhosa

The analysis of the experiences of the HCWs was grouped into three main themes: their perceived language abilities, their job satisfaction related to language difficulties and their interpersonal relations at work relating to language skills. In addition to these, their levels of worry about making mistakes and their opinions concerning the importance of learning Xhosa and of the use of interpreters were assessed. All of these assessments were done both before and after completing the ten week Xhosa course.

4.1.1 Perceived ability to communicate with Xhosa-speaking patients

4.1.1.1 Ability to speak Xhosa

HCWs self-ratings of their ability to speak Xhosa showed a significant improvement after they had completed the course. Half of the participants started the course with their self assessment of their ability to speak Xhosa being “*not at all*”, so it would be expected that after 10 weeks of Xhosa classes, their level of Xhosa should increase above this level. Only one participant rated themselves as being able to speak Xhosa “*not well*” both before and after the course, the others ratings increased from “*not well*” to “*averagely*”.

This finding is similar to that of Mazor et al's¹ study. In this study, physicians were taught Spanish and they expressed increased confidence overall in their abilities to address various medical complaints in Spanish. In this study, there was no statistical assessment of their improved language abilities. A further study by Binder, Nelson and Smith⁶³ also showed that participants in a medical Spanish course perceived their communication skills to improve after completing the course.

4.1.1.2 Adequacy of communication

Participants rated their adequacy of communication with Xhosa-speaking patients at a significantly higher level after the course than they did before the course. All but one of the participants partly agreed with the statement “*I feel that I am able to communicate with Xhosa-speaking patients adequately*” after they had completed the course, whereas before the course all but one either strongly or partly disagreed with the statement.

This increased confidence in their abilities to communicate with Xhosa-speaking patients could potentially cause misunderstandings however if this leads to the HCWs relying on their inadequate skills more than before and not asking for help with interpreting when they should.

Prince et al² noted that participants in a Spanish course only used professional interpreters 46% of the time after completing the course, despite the course emphasizing the use of interpreters as an important adjunct to learning Spanish. This resulted in them making a number of mistakes, some rated as major and some minor. In this study, only 14% of the recorded interviews contained no errors in speaking or understanding Spanish, despite the fact that trained interpreters were present in 46% of the interviews. This demonstrates how easy it is to make errors when speaking to a non-language-concordant patient. Prince’s study did not have a pre-intervention arm, so it is unknown whether the number of errors decreased or actually increased as a result of HCW’s increased confidence in their language abilities.

In Mazor et al’s¹ study, there was also a decrease in the use of trained interpreters after physicians completed a Spanish course. This was viewed as a positive outcome by the researchers. However after only ten weeks of Spanish training; the participants would not be able to take a detailed history or give detailed instructions to the patients in Spanish, so this might actually be a negative outcome, leading to more errors.

4.1.1.3 Patients' and HCWs' ability to understand each other

For this assessment area HCWs perceived a significant improvement after completing the course. Four out of the six participants strongly agreed with the statement “*I often feel that my patients and I am not able to fully understand each other because we do not speak the same language*” before the course and only one disagreed, whereas after the course none of them strongly agreed with this and two disagreed. The difference was statistically significant.

Being able to communicate adequately and being able to understand each other are similar concepts, so it is not surprising that these areas showed similar improvements.

4.1.2 Job Satisfaction

Only one area assessed regarding job satisfaction related to communication showed a significant improvement. The other three areas assessed did not show significant improvement and the combined score of the four questions also did not show a significant improvement.

4.1.2.1 Frustration with communication

Five of the six participants either partly (3) or strongly (2) agreed with the statement “*I find it frustrating to try and communicate with patients who speak Xhosa*” before starting the course. After completing the course, only three partly agreed and none strongly agreed with this statement. Overall, there was a significant improvement in that the HCWs found it less frustrating to communicate with Xhosa speaking patients after completing the course.

The frustrations HCWs experience as a result of not being able to communicate adequately have been well-described in a number of articles.^{40 42} It is frustrating for a HCW to not be

able to understand what a patient is saying and vice versa. It is also frustrating for a HCW to try and find an interpreter to assist when they realise they can go no further in the consultation without assistance. Trying to communicate via miming and gesturing can lead to misunderstandings and increased frustration levels too.

Possibly another factor which led to the HCWs reporting decreased frustration levels could be that they gained a level of increased cultural sensitivity as a result of the emphasis placed on cultural diversity during the course. It is less frustrating dealing with people of a different ethnic group and language if you have an understanding of their culture. Many basic language training programs and training in the use of interpreters for medical staff described in the literature refer to cultural sensitivity as an important aspect in which the HCWs must gain an understanding.^{3 46 47} This helps to make the consultations easier and more satisfying for both parties. When communicating with someone in their own language, the interaction can become more relaxed and allow for an inter-personal relationship which has warmth, compassion and understanding to develop.

4.1.2.2 Other job satisfaction indices

The HCWs' assessment that communicating with Xhosa-speaking patients is a difficult aspect of their jobs (the average response tended towards partly disagree with the statement that it is not a difficult aspect of their job) did not change after completing the course. This could possibly be explained by the fact that the level of Xhosa learned was not adequate to improve their communication enough to remove difficulties they experience on a daily basis.

The responses to the query about whether language difficulties prevent the HCWs from enjoying their jobs showed a non-significant improvement after completing the course. However for the query as to whether job satisfaction is affected by communication difficulties, the response mean was the same pre and post course. This could be interpreted by using the explanation that HCWs job satisfaction is derived from many more factors than purely communication issues, so this is not a big enough problem to them in their work to affect their job satisfaction negatively.

4.1.3 Worry about making mistakes

The participants reported worrying about making mistakes due to language differences less often after completing the course; however this difference did not reach statistical significance. This question did not assess whether the respondent felt they were making fewer mistakes, rather it assessed whether they were concerned they were making mistakes. The difference may seem subtle but it is of some importance. It is likely that a question assessing whether the respondents felt they were making many mistakes would be agree with the previous self-assessment of their language abilities and show an improvement.

Thus the fact that the HCWs' worries about making mistakes did not significantly decrease, despite their belief that their language skills had improved indicated that one aspect of their learning was a heightened awareness of their inadequacies in speaking the language. One of the participants actually reported higher levels of worrying about making mistakes after the course than before. This could be viewed as a positive outcome seeing that they were only taught basic Xhosa which would in all likelihood not be adequate for them to become fluent and free of errors when communicating with Xhosa-speaking patients.

Surprisingly, one participant reported never worrying about mistakes after the course. Possibly this could be attributed to the fact that this same participant reported that it was easy to find someone to translate for him / her "*often*" and he / she perceived (perhaps incorrectly) that using an interpreter leads to fewer errors.

A previous study by Bischoff, Perneger, Bovier, Louten and Stadler⁵⁴ on training physicians in the use of interpreters found that the physicians did not perceive that the quality of their communication with their patients had improved after the training (in fact they became more critical of communication issues) even though the patients did give improved ratings. This was attributed to the fact that the training raised their awareness of communication and language barriers.

4.1.4 Use of interpreters

Although the results did not reach statistical significance, the HCWs' perceptions of the use of interpreters showed that after completing the course, they perceived them to be a less effective form of communication with patients than they did prior to starting the course. This could probably be attributed to their increased understanding of the subtleties of communication with Xhosa-speaking patients which can be missed when not speaking directly with a patient in their own language.

Communicating via an interpreter is not a simple task and frequently errors may be made including incorrect translation, exaggeration or minimization of symptoms, distortion of information and others. This is particularly true when speaking via an untrained interpreter. Studies show that interpreter use may compromise certain aspects of patient care^{47 59}, and this may have become more apparent to the HCWs once they gained more insight into the language and culture of their patients. They were less sure that they would be able to effectively communicate with Xhosa-speaking patients via a interpreter after completing the course and gaining more insight into the limitations of communicating via a third person. Also, they were not as sure that speaking via a interpreter is as good as if you were speaking to the patient directly as they were prior to starting the course. That speaking directly to a patient in their own language is preferable to speaking to them through a interpreter has been proved in a few studies.^{2 57}

Important to note in this context is that there are no professional interpreters in the MDHS, so when HCWs respond to questions of interpreters, they are referring to the ad-hoc interpretation commonly practiced at most CHCs. In the majority of cases nurses are used, but other staff members such as clerks or cleaners may be used as may other patients or family members. There have been a number of studies which have demonstrated the danger in using these interpreters due to errors made by them. However, patient satisfaction with using family members or friends to interpret has been shown to be a lot higher than that of doctors using the same interpreters.⁶⁴ This may be attributed to the perception by the doctors

that lay interpreters do not have the required medical knowledge to accurately translate in the way that they need.

4.1.5 Not completing the course

Only 26% of the HCWs who signed up for the course actually completed it. Similar drop out rates have been experienced when the course has been run at other institutions (personal communication with Philip Lewis of Siyavana Language Consultants cc on 14 February 2009). In order to better understand this phenomenon, some analysis was done.

There were no statistically significant differences found in the responses before the course between those who didn't complete the course and those who did.

All respondents stated that it is of benefit to learn Xhosa, with 86% strongly agreeing that learning Xhosa is of benefit to HCWs in the group who did not complete the course, and 83% strongly agreeing in the group which did complete the course.

There was an even distribution of responses for both groups to the question of how easy it was to find an interpreter while at work, with approximately 50% responding that it was often or always easy to find an interpreter for both groups.

The job satisfaction indices also did not differ significantly between the two groups for any of the four questions, with approximately the same proportion of respondents agreeing that they found communication frustrating; that communication with Xhosa-speaking patients was a difficult aspect of their job; that language difficulties prevent them from enjoying their job to the full and that their job satisfaction is affected by their inability to communicate.

So one can conclude that job frustration levels due to communication, difficulties in finding someone to translate for them and staff relationships being affected by inability to speak Xhosa were not reasons that led people to be motivated to complete the Xhosa course.

The demographics of the two groups (those who completed the course and those who didn't) also did not differ significantly in terms of age ($p=0.104$), gender ($p=0.531$), home language ($p=0.502$) or category of HCW ($p=0.321$) as tested by using the Kruskal-wallis test for ages and the chi-squared test for the other variables. For the group which did not complete the course, the median age was 28.5 years and the interquartile range was 26-43 years.

So what led to some people completing the course and others dropping out after only a few sessions? Seven of the fourteen participants who dropped out were asked a few questions to determine the reasons for their non-completion, to assess their initial motivation to learn Xhosa and to get suggestions for future teaching.

When asked what their initial motivation was to learn Xhosa, most responded that they wanted to be able to communicate with their patients more easily and one expressed being frustrated at not being able to understand Xhosa at all. Others thought that it would make their working life easier from the point of view of being able to interact with Xhosa-speaking staff members more easily and from understanding the community better and being able to integrate into the community more easily. One responded that it would be a good thing to have on his/her CV.

The reasons given for not completing the course included: the time commitment being too great and clashing with work responsibilities; the venue not being convenient (that it was at some of the participants' work place, so they would be called out to perform duties whilst sitting in class); the course work being too difficult; the Xhosa that was being taught not being relevant enough to the medical field the HCWs were in and the course teaching style not suiting the respondent's learning style. One respondent, who is a foreign national, dropped out due to the xenophobic attacks which took place in the country at the time of the course. He stated that his initial motivation to learn Xhosa had been to integrate himself more into the society, but after the attacks, he no longer wished to do this.

4.2 Patient's experiences related to HCWs learning Xhosa

The findings in this study are similar to those of Mazor et al's¹ study in that all areas assessed for patient satisfaction related to communication were shown to improve significantly after the HCWs completed the Xhosa course, except for one.

In Mazor's study, there were only four areas of patient satisfaction assessed; whether the physician was concerned about the patient, whether they were made to feel comfortable, whether they were respectful and whether the physician listened to what they said.

In this study, additional areas investigated were whether the patients felt that they had understood the HCW and whether the instructions given by the HCW were clear, and whether they felt that the HCW understood their problem. These areas were included to give a better idea of the effect of the newly-acquired language skills on the HCW-patient communication itself and not just on the cultural sensitivity issues assessed by the other four questions.

Despite this being only a ten week course, with two hours a week of classes, and the Xhosa learned in the course being basic and not particularly medically slanted, the improvements in patients' understanding of what the HCWs said to them was still significant. The course did place a detailed emphasis on cultural diversity and the significant improvement in the patient satisfaction with the way the HCWs treated them is probably partly due to this.

The one area where there was not a significant improvement shown was the response to the statement "The staff member who helped me today made me feel comfortable." In the translation process, this statement's translation into Xhosa became "The staff member who helped me today made me feel at home" and not 'made me feel comfortable'. Possibly this slight difference in meaning could explain why there was not a significant improvement. Feeling at home and feeling comfortable are not exactly the same concepts so in answering whether they felt at home or not would have a different response to answering whether they

were made to feel comfortable or not. Despite this, there was an improvement shown, but the values did not quite reach the level of significance ($p=0,058$).

4.3 Limitations of the study

It has been pointed out in a study looking at translation of a quality of life questionnaire into Xhosa that translating a validated questionnaire into another language might cause the validity to be questioned.⁶⁵ In this study, the questionnaire used was based on one which was previously validated in English and Spanish, however it has not been used in Xhosa before. This may have compromised its validity.

The small number of HCWs who completed the Xhosa course limits the generalisability of the findings.

The fact that the HCWs signed up for the Xhosa course were probably a sub-set of HCWs who were more dedicated to improving their cultural sensitivity and language skills than others might be, could account for the marked improvements seen in patient satisfaction. This effect might not be as marked if a similar study was done on HCWs persuaded to learn Xhosa, but not really motivated to do so.

4.4 Possible biases

Sample bias: The manner in which the research assistant recruited patients to be interviewed may have biased the sample. Recruitment was done in an open waiting area, with the potential that the patients would be overheard when rating their language abilities and this may have led to them not answering truthfully. Possibly, patients overhearing others being recruited may have been interested in participating and therefore answered that their language ability was worse than it really was in order to be asked to participate. If this bias was present, it would be present in both the before and after samples.

In the pre-intervention group, a different interviewer was used for one of the HCW's patients than the research assistant used for all the other patients both before and after the intervention. This may have led to a difference in the manner of sampling the patients.

Response bias: It is possible that patients answering the questions may have answered in such a way as to not to cause offence and therefore they may have answered more favourably than they really felt. They were all assured that their answers would not be fed back to the HCWs whom they were assessing, but they may still have been anxious not to cause offence, or to prejudice their future treatment at the CHC and therefore answer in a more favourable manner than accurately reflects reality. However, this possible bias would be present for both the pre- and post-course arms of the data collection as the patients did not know whether the HCW they were assessing had completed the course or not, so this should not affect the detection of any differences in the responses before and after the course.

Again, in the pre-intervention group, the different interviewer for one HCW's patients may have interviewed the patients in a different manner and therefore elicited different responses as compared to the patients interviewed by the research assistant used for the other patients.

The Hawthorne effect: This may have led to the HCWs behaving in a different manner towards the patients in order to gain favourable assessments from the patients. This effect should have been present in both the before and after samples, however the HCWs may have unknowingly adapted their manner more after completing the course, knowing that the results should show an improvement than they did before the course.

Chapter 5: Conclusions and recommendations

5.1 Conclusions

This study has shown that teaching basic Xhosa to Health Care Workers can result in significantly improved patient satisfaction and understanding levels. It can also result in increased confidence by the HCWs in their abilities to communicate with Xhosa-speaking patients and in decreased frustration levels when communicating with Xhosa-speaking patients.

As participating in the course can lead to these benefits, there should be more of an incentive from the management of MDHS to encourage staff to attend the course. In this study, there was a very high drop-out rate. This has been experienced with the Xhosa course previously when it was offered to staff of MDHS.

Though this study was not a large scale one, the results point to some promising indicators and the dearth of local material is such that even this small scale study could therefore be significant.

5.2 Recommendations

5.2.1 Different approaches to teaching Xhosa

As there is such a high drop out rate from the course, investigating new ways of teaching Xhosa should be sought.

An article by Saohatse⁴³ based on research at Baragwanath Hospital in Johannesburg where many African languages are spoken proposed a different way of teaching doctors important phrases in the various languages used there. It was suggested that there should be a brief morning meeting where the doctors could be taught a few phrases and their responses in the 3

most predominantly spoken languages at this hospital, and that they could then be given flash cards with these phrases on to use and practice with through the day. In this way, it was proposed that they could incorporate the languages easily as it would be practiced in a real life setting immediately after being taught. The fact that a written prompt would be made available would make it easier to use the languages and remember to practice them.

This model has not been tested either there, or at any other medical setting, but if well-implemented, could be a feasible way of learning and incorporating the language immediately. The advantages of using that system of teaching would be that it doesn't require a large time commitment from the doctors as do most other forms of teaching languages that have been discussed in the literature. If the teaching is just a few phrases taught during an existing meeting, it would not cause the doctors to be away from their work for prolonged periods in order to learn the language. If they were given cards with the phrases on them, or 'phrase kits' they would be reminded to use them during the day and could refer to these and not rely on their memory only.

One of the issues that both people who did complete the course and those who didn't commented on was that they would have preferred the Xhosa course to be more medically orientated. Possibly this needs to be investigated by the course conveners so that they can make the course more sector-specific.

Teaching language by immersion workshops, rather than in short classes has been studied by Bender et al.³ They recommended letting the language "wash over [one's] ears" in order to get a better grasp of it rather than memorizing it and learning it in a more structured way. The authors noted the fact that Health Professionals tend to be very skilled and organised and good at studying and taking tests, however this is not necessarily of value when learning to speak a new language, as this is based more on intuition than on protocols and processes.

5.2.2 Teaching cultural skills

Quesada⁶⁶ states in a paper on communication barriers that crash programs in language acquisition for professionals are only a partial solution of language barriers. He states that language skill is not enough, rather that professionals must be knowledgeable about the culture of the group they are working with in order to be effective. This is because people from different cultures have different ways of dealing with and understanding illness and disease.

In the article by Hudleson⁴⁷, giving interpreters' insights into translation and cultural understanding, it was recommended that doctors need to be more aware of how difficult it is to translate medical terms meaningfully and that this could lead to misunderstandings. A further recommendation was that doctors need to be aware of the cultural and social differences between them and their patients in order to better understand the doctor-patient interactions more fully.

Cultural competency training is now part of some medical schools in South Africa's curricula. In the USA, more than 90% of medical schools have incorporated cultural competency training into their curricula.⁶⁷ At the University of Cape Town, this is covered during their "Becoming a Professional", "Becoming a Health Professional" and "Becoming a doctor" modules in first and second year. An approach which has been recommended in teaching cultural competence is to emphasise the medical profession as a distinct culture and to try to avoid racial and ethnic stereotyping.

In a systematic review of culturally competent healthcare systems, Anderson, Scrimshaw, Fullilove, Fielding and Normand⁶⁸ suggest that a culturally competent healthcare system should include: culturally diverse staff which reflects the community it is serving, HCWs or interpreters competent in the clients' language and training for the HCWs in language and cultural competence, amongst other recommendations. They go on to recommend that cultural competence training should create an enhanced awareness of the HCW's own

attitudes and reactions to those of other cultures, improved communication skills and increased knowledge of cultural beliefs and practices around health care.

One week of the ten week Xhosa course was dedicated to improving cultural understanding of Xhosa patients and not just language itself. This most likely positively affected the outcomes more than just learning language itself would have and should definitely be included in all future Xhosa classes.

Cultural diversity workshops have been made available to staff working at MDHS, but there has been no drive to encourage staff to participate in these. Possibly they should be more actively promoted for all staff.

5.2.3 Encouraging HCW participation in language courses

Incentives such as linking Xhosa learning to performance assessment could be implemented. This could encourage more people to commit themselves to learning the language and culture of the patient population they are serving. If courses are more easily accessible for in service training purposes, and are more strongly advocated by management in the Health sector, possibly more HCWs would make the effort to learn Xhosa.

More active recruitment of HCWs onto the course could be investigated, particularly in light of the positive effects on patient satisfaction shown in this study.

5.2.4 Recommendations for further research

Investigating reasons for non-completion of courses such as these in more depth, could assist with understanding how the courses could be re-structured in a more user-friendly manner to encourage more people to participate in and complete them.

In this study, the post-intervention interviews of both staff and patients were conducted within five months of completion of the course, with the majority of the interviews being completed within a month of the course being completed. Another area which could be studied is the longer term effects on both the HCWs and the patients after they completed the course and seeing whether the effects were maintained over time or whether they changed.

Implementing a different manner of teaching Xhosa such as the one suggested above and investigating its effects on HCWs and patients and comparing these effects with those of this study could highlight the effectiveness of different ways of studying Xhosa.

Despite this being a small-scale study, the value of learning the language of the community one is serving and gaining insight into their culture has been demonstrated. This can be used as a basis for larger studies of a similar nature.

University of Cape Town

APPENDICES

APPENDIX A: QUESTIONS FOR HEALTH CARE WORKERS

APPENDIX B: QUESTIONS FOR PATIENTS (administered in Xhosa)

APPENDIX C: IMIBUZO YEZI GULANA: (XHOSA QUESTIONNAIRE)

APPENDIX D: Participant information sheet for health care worker participants

APPENDIX E: Participant information sheet for patient participants

APPENDIX F: FOMU YESIVUMELWANO (Xhosa consent form)

APPENDIX G: Post-course interview for HCWs which did not complete the course

APPENDIX H: Approval from research ethics committee

APPENDIX A: QUESTIONS FOR HEALTH CARE WORKERS

Demographics

Age _____

Gender _____

Health Care Worker category _____

Home language _____

1. I can speak Xhosa.

Not at all Not well Averagely Well Very well

1	2	3	4	5
---	---	---	---	---

2. I feel that I am able to communicate with Xhosa-speaking patients adequately.

Strongly Disagree Partly Disagree Unsure Partly Agree Strongly Agree

1	2	3	4	5
---	---	---	---	---

3. I often feel that my patients and I am *not* able to fully understand each other because we do not speak the same language.

Strongly Disagree Partly Disagree Unsure Partly Agree Strongly Agree

1	2	3	4	5
---	---	---	---	---

4. I worry that I make mistakes due to not being able to communicate with Xhosa-speaking patients.

Never Occasionally Sometimes Often All the time

1	2	3	4	5
---	---	---	---	---

5. At my work, it is easy to find someone to translate for me and a patient.

Never Occasionally Sometimes Often All the time

1	2	3	4	5
---	---	---	---	---

6. When I use a interpreter to speak with a patient, I feel that this is as good as if I could speak to them directly.

Strongly Disagree Partly Disagree Unsure Partly Agree Strongly Agree

1	2	3	4	5
---	---	---	---	---

7. I am able to effectively communicate with patients via an interpreter.

Strongly Disagree Partly Disagree Unsure Partly Agree Strongly Agree

1	2	3	4	5
---	---	---	---	---

8. I find it frustrating to try and communicate with patients who speak Xhosa.

Strongly Disagree Partly Disagree Unsure Partly Agree Strongly Agree

1	2	3	4	5
---	---	---	---	---

9. Communicating with Xhosa-speaking patients is *not* a difficult aspect of my job.

Strongly Disagree Partly Disagree Unsure Partly Agree Strongly Agree

1	2	3	4	5
---	---	---	---	---

10. I feel that learning Xhosa is of benefit to a Health Care Worker in their practice.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

11. Language difficulties prevent me from enjoying my job to the full.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

12. In everyday practice, my job satisfaction is *not* affected by communication difficulties.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

13. My relationship with Xhosa-speaking staff is negatively affected by my inability to speak Xhosa.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

APPENDIX B: QUESTIONS FOR PATIENTS (administered in Xhosa)

Demographics

Age _____

Gender _____

Do you understand English or Afrikaans

Completely cannot	Cannot	I try	At least I know it	I am able to
1	2	3	4	5

1. The staff member who helped me today was concerned about me.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

2. The staff member who helped me today understood my problem.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

3. The staff member who helped me today was respectful.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

4. The staff member who helped me today made me feel comfortable.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

5. The staff member who helped me today listened to what I said.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

6. I understood what the staff member who helped me today said to me.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

7. The instructions given to me by the staff member who helped me today were clear.

Strongly Disagree	Partly Disagree	Unsure	Partly Agree	Strongly Agree
1	2	3	4	5

APPENDIX C: IMIBUZO YEZI GULANA: (XHOSA QUESTIONNAIRE)

Iminyaka _____

Isini _____

Uyayiva i-English okanye i-Afrikaans?

Andikwazi kwaphela	Andikwazi	Ndiyazama	Noko Ndiyayazi	Ndiyakwazi
1	2	3	4	5

1. Lo mongikazi ebendiceda namhlanje ebe khathala ngam.

Andivumelani konke	Andivumi ncam	Andiqinisekanga	Ndiyavuma noko	Ndiyavumelana kakhulu
1	2	3	4	5

2. Umongikazi ebendiceda namhlanje uyivile ingxaki yam.

Andivumelani konke	Andivumi ncam	Andiqinisekanga	Ndiyavuma noko	Ndiyavumelana kakhulu
1	2	3	4	5

3. Umongikazi ebendiceda namhlanje ebendihloniphile.

Andivumelani konke	Andivumi ncam	Andiqinisekanga	Ndiyavuma noko	Ndiyavumelana kakhulu
1	2	3	4	5

4. Umongikazi ebendanceda judenze ndaziva ndisekhaya.

Andivumelani konke	Andivumi ncam	Andiqinisekanga	Ndiyavuma noko	Ndiyavumelana kakhulu
1	2	3	4	5

5. Umongikazi ebendanceda namhlanje ebendimamele.

Andivumelani konke	Andivumi ncam	Andiqinisekanga	Ndiyavuma noko	Ndiyavumelana kakhulu
1	2	3	4	5

6. Yonke into umongikazi ebendixelela yona namhlanje ivakele.

Andivumelani konke	Andivumi ncam	Andiqinisekanga	Ndiyavuma noko	Ndiyavumelana kakhulu
1	2	3	4	5

7. Imigaqo ebendiyinikwa ngumongikazi namhlanje ibicacile.

Andivumelani konke	Andivumi ncam	Andiqinisekanga	Ndiyavuma noko	Ndiyavumelana kakhulu
1	2	3	4	5

APPENDIX D: Participant information sheet for health care worker participants

1. PURPOSE OF THE STUDY

The reason for this study is to determine non-Xhosa-speaking Health Care Workers' perceived ability to communicate with Xhosa-speaking patients, and their job satisfaction related to this. They will also be asked their ideas as to what they think would be the best way for them to learn Xhosa. The perceptions of their communication and satisfaction will be reassessed after having completed a basic medical Xhosa course. In addition, patient satisfaction related to their communication abilities will be assessed before and after having completed the basic medical Xhosa course, in order to assess the effect that the course has on Health Care Workers' communication abilities.

2. PROCEDURES

If you agree to participate in this study, you would be asked to do the following things:

- Answer questions on a questionnaire related to your feelings and ideas around communication and learning of Xhosa. This should take around 20 to 30 minutes.
- After completing the basic Xhosa course, you will be asked to complete the same questionnaire again, so that any changes in your responses as a result of having completed the course can be ascertained.
- Agree to having patients which have seen you be asked a brief questionnaire related to their impressions of your communication abilities both before and after having completed the course.

3. WHAT TO EXPECT DURING AND FROM THE RESEARCH PROCESS

Answering the questions will take about 20 to 30 minutes.

Learning Xhosa, this will require a time commitment from you in order to complete the course.

After having completed the course, you will be asked to complete the same questionnaire again in order to assess any differences.

One to three patients which you have seen both before and after you have completed the course will be asked to complete a brief questionnaire about their assessment of your communication skills in order to determine the effect that the course has on Health Care Workers' communication.

4. PAYMENT FOR PARTICIPATION

There will be no payment to the participants.

5. CONFIDENTIALITY

All information shared when answering the questions asked of you will be considered confidential.

You will not be identified by name on the answer sheet, only a number, and only the researcher will know whose name goes with which number. This information will not be shared with anyone outside of the research process.

The patient satisfaction responses will also be confidential. Only the researcher and research assistant will see the responses. This information will not be shared with anyone.

6. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. You may also refuse to take part in any particular aspect of the research process, but still take part in the research project as a whole.

7. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Dr Katy Murie (082 534 1740).

8. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and stop participating without negative effects to you. You are not losing any legal claims or rights because of your participation in this research study. If you have questions regarding your rights as a research subject, contact () at the Unit for Research Development, or any member of the research ethics committee (ph no).

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to [me/the subject/the participant] by [name of relevant person] in [Afrikaans/English/Xhosa/other] and [I/the subject /the participant] understand this language or it was satisfactorily translated to [me/him/her]. [I/the participant/the subject] was given the opportunity to ask questions and these questions were answered so that [I/he/she] understand(s) completely.

[I hereby consent voluntarily to participate in this study/I hereby consent that the subject/participant may participate in this study.] I have been given a copy of this form.

Name of subject/participant

Name of legal representative (if applicable)

Signature of subject/participant or legal representative

Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the subject/participant*] and/or [*his/her*] representative _____ [*name of the representative*]. [*He/she*] was encouraged and given ample time to ask me any questions. This conversation was conducted in [*Afrikaans/English/Xhosa/other*] and [*no interpreter was used/this conversation was translated into _____ by _____.*]

Signature of Investigator

Date

University of Cape Town

APPENDIX E: Participant information sheet for patient participants

1. PURPOSE OF THE STUDY

The reason for this study is to determine non-Xhosa-speaking Health Care Workers' perceived ability to communicate with Xhosa-speaking patients, and their job satisfaction related to this. They will also be asked their ideas as to what they think would be the best way for them to learn Xhosa. The perceptions of their communication and satisfaction will be reassessed after having completed a basic medical Xhosa course. In addition, patient satisfaction related to their communication abilities will be assessed before and after having completed the basic medical Xhosa course, in order to assess the effect that the course has on Health Care Workers' communication abilities.

2. PROCEDURES

If you agree to participate in this study, you would be asked to do the following things:

- Answer questions on a questionnaire related to your experience around communication with a non-Xhosa-speaking the health care worker you have seen today. This should take around 20 minutes.

3. WHAT TO EXPECT DURING AND FROM THE RESEARCH PROCESS

Answering the questions will take about 20 minutes. We would ask you to answer the questions as honestly as possible.

The staff member you have been asked to assess with regards to their communication [will be doing/has done] a basic medical Xhosa course to help to improve their communication skills in Xhosa. We want to see how effective this course is.

4. PAYMENT FOR PARTICIPATION

There will be no payment to the participants.

5. CONFIDENTIALITY

All information shared when answering the questions asked of you will be considered confidential.

You will not be identified by name on the answer sheet, only a number, and only the researcher will know whose name goes with which number. This information will not be shared with anyone outside of the research process.

Answering the questions honestly will not in any way affect the level of care you receive from this community health centre.

6. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study.

7. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Dr Katy Murie (082 534 1740).

8. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and stop participating without negative effects to you. You are not losing any legal claims or rights because of your participation in this research study. If you have questions regarding your rights as a research subject, contact () at the Unit for Research Development, or any m

APPENDIX F: FOMU YESIVUMELWANO (Xhosa consent form)

1. UNOBANGELA WESI SIFUNDO

- ❖ Unobangela Wesi sifundo kukufumanisa abongikazi bezempilo abangalaziyo ulwimi lwesiXhosa baze bazokwazi ukuthetha okanye ukuvana nezigulana ezithetha ulwimi lwesiXhosa.

2. IMIGAQO

Ukuba uyavumelana nokuthatha inxaxheba koluCwaningo, uzakunyazeleka ukuba wenze ezi zilandelayo:

- ❖ Ukuphendula imibuzo ngokwazi kwakho, ekudibaneni nomongikazi wezempilo ongakwaziyo ukuthetha ulwimi lwesiXhosa namhlange.
- ❖ Uzakube uphendula imibuzo apho abasebenzi balendawo bezakube bengeva futhi bengaboni nto.

3. IZINTO EZILINDELEKILEYO KOLUCWANINGO

- ❖ Ukuphendula imibuzo kungathatha nje imizuzu elishumi.
- ❖ Sizakuqinisekisa ukuba aniphosani namaxesha wenkonzo zenu okanye aniphulukani neendawo enizakube nimi kuzo ngethuba nizakube niphendula imibuzo yabacwaningi. (yabaphandi)
- ❖ Awuzokwaziswa ukuba lomongikazi uzakube ekunceda ingabe wenze izifundo zempilo ngolwimi lwesiXhosa kusini na.
- ❖ Sizakucela unyaniseke ngokwempendulo zakho.

4. INTLAWULO NGOKUTHATHA INXAXHEBA?

- ❖ Akukho ntlawulo ikhutshwayo ngokuthatha inxaxheba.

5. IMFIHLELO

- ❖ Yonke incukaca ozakube uyinikezela izakuhlala iyimfihlelo.
- ❖ Awuzu ‘kubizwa ngegama lakho uzakubizwa ngenombolo yephepha ozakuba ulinikiwe, ngabacwaningi abazakube beyazi ukuba inombolo etile ihambelana neliphi na igama.
- ❖ Ezincukacha asoze kuthethwe ngazo nakubani na kulo msebenzi wethu.
- ❖ Nokuba uphendule wathini ntonje ibeyinyaniso futhi lonto asoze itshintshe indlela okhathalelwe ngayo.

6. UKUTHATHA INXAXHEBA NOKURHOXA EKUTHATHENI INXAXHEBA

- ❖ Ungazikethela ukuba uyafuna ukuthatha inxaxheba okanye hayi.
- ❖ Ukuba ngaba ubuthathe inxaxheba koluCwaningo, ungakwazi nokurhoxa xa ufunayo ngaphandle kwelahleko.
- ❖ Awunyanzelekanga ukuphendula imibizo xa ungafuniyo ukuphendula, kodwa lonto ayikwenzi ukuba mawurhoxe ekuthatheni ixaxheba yakho koluCwaningo.

7. INKCUKACHA LWABAPHANDI

- ❖ Ukuba ngaba unemibuzo okanye imibonomalunga noluCwaningo, uyacelwa ukuba ukhululeke ubethele umnxeba kwezinombolo zilandelayo: 021 3861121 uthethe noDr Katy Murie.

8. AMALUNGELO OKUPHANDA

- ❖ Ungahlala ungaphenduli nto xa ufuna, akukhonto izakwenzeka kuwe. Akukho nelahleko ozakubanayo ngokwezomthetho ngenxa yentsebenziswano yoluphando. Xa unombuzo, malunga namalungelo akho nje ngomphandi, fonela nokuba ngubani kubaphathi boluphando kule nambolo 021 4066492.

UTYIKITYO LWESIVUMELWANO ESICACISIWEYO

Le inkcukacha ingasentla icacisiwe kum ngu _____ yaye futhi ndicacelwe yinto ekwiphepha lesivumelwano. Ndinikiwe ithuba lokubuza imibuzo yaye impendulo ndizifumene ndacacelwa ngokupheleleyo.

Ndiyavuma ukuthatha inxaxheba koluCwaninngo.

Ndiyiniwe ikopi yeli phepha.

Igama

Sayina

Umhla

APPENDIX G: POST-COURSE INTERVIEW FOR HCWS WHICH DID NOT COMPLETE THE COURSE

1. How many of the 10 classes did you attend?
2. If you did not complete the course, what were the barriers to completing it? (choose as many as are relevant):
 - a. The course was too difficult
 - b. The time commitment to the course was too great
 - c. The venue was not convenient
 - d. I did not like the way the course was taught/the style of teaching
 - e. I did not find the course relevant
 - f. Other

Please elaborate on any of your answers:

3. What aspects of the course did you find helped you to learn?

4. What would you recommend to the course conveners for future teaching?

5. What was your initial motivation to learn Xhosa?

6. Do you have any suggestions for ways to make the course easier for people to complete?

University of Cape Town

APPENDIX H: APPROVAL FROM RESEARCH ETHICS COMMITTEE



UNIVERSITY OF CAPE TOWN

**Health Sciences Faculty
Research Ethics Committee
Room E52-24 Grootte Schuur Hospital Old Main Building
Observatory 7925
Telephone [021] 406 6338 • Facsimile [021] 406 6411
e-mail: lamees.emjedi@uct.ac.za**

22 February 2008

REC REF: 480/2007

Dr KF Murie
c/o Dr L Gwyther
Public Health & Family Medicine

Dear Dr Murie

PROJECT TITLE: AN INTERVENTION STUDY TO DETERMINE WHETHER COMPLETING A BASIC MEDICAL XHOSA COURSE IMPROVES NON-XHOSA-SPEAKING HEALTH CARE WORKERS' PERCEIVED COMPETENCE TO COMMUNICATE WITH XHOSA-SPEAKING PATIENTS, AND THEIR JOB SATISFACTION

Thank you for submitting your study to the Research Ethics Committee for review.

It is a pleasure to inform you that the Ethics Committee has **formally approved** the above-mentioned study.

Your comments to the queries raised are noted with thanks.

Federal Wide Assurance Number: FWA00001637.
Institutional Review Board (IRB) number: IRB00001938

This serves to confirm that the University of Cape Town Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Convention on Harmonisation Good Clinical Practice (ICH GCP) and Declaration of Helsinki guidelines.

The Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please quote the REC. REF in all your correspondence.

lemjedi

Yours sincerely

Signed by candidate

PROFESSOR M BLOCKMAN
CHAIRPERSON, HSF HUMAN ETHICS

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