Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital, Vhembe District

by

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A mini-dissertation submitted in partial fulfilment of the requirements for the degree of Masters of Public Health (MPH) in the School of Health Sciences at the University of Venda

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DECLARATION

I, Thendo Mutangwa, Student number: 14008945, hereby declare that the mini-dissertation entitled **"Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital-Vhembe District"** for the Masters in Public Health degree at the University of Venda, hereby submitted by me, has not been submitted for a degree at this or any other university, that it is my own work in design and execution, and all reference material contained therein has been duly acknowledged.

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Mutangwa T.	Date

DEDICATION

This mini-dissertation is dedicated to my beloved and late father, Mr Thanyani Samuel Nemalili, for the love and support and encouragement during my foundation phase of education as well as for always emphasizing the importance of education. Even in absentia I know this dream is yours too.

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ABSTRACT

Workplaces are important settings for health promotion and disease prevention. Participation in sport and recreation can lead to improved health of individuals and increased productivity levels at work places. Despite the health benefits of sports and recreation and the approval of the workplace sports and recreation policy in the Limpopo Department of Health, many employees still do not participate, even when invited for games. The aim of the study was to determine the perceived factors influencing participation of non-medical staff members in workplace sports and recreation at Elim Hospital using the constructs of the Health Belief Model. A quantitative descriptive cross-sectional study was conducted. The population were all non-medical staff members of Elim Hospital. A total sample of 222 non-medical staff members of Elim Hospital were used for the study. Participants were divided into three categories, depending on the type of their work. A researcher-administered structured questionnaire based on the construct of the Health Belief Model was used to collect data. The Statistical Package for Social Sciences (SPSS) version 23 and Microsoft Excel was used to analyse the data. A descriptive statistical method was used to analyse frequencies and Chi-square test was used to determine the level of significance of correlations between the different variables. A probability level of 0.05 or less was used to indicate statistical significance. The study revealed that the rate / level of participation in workplace sports and recreation among non-medical staff members at Elim Hospital was low (30%). Participants perceived themselves mainly as less susceptible and not susceptible to NCDs. The major barriers to participation that were identified include lack of awareness of the sports and recreation policy as well as busy work schedule. There was a significant relationship between participation and age of respondents, as well as between participation and occupation category. Educational programme geared towards increasing awareness of employees on the policy as well as on benefits of sports and recreation can significantly improve participation in workplace sports and recreation.

Keywords: Perceive, Participation, Workplace, Sports, Recreation, Non-medical staff

Abbreviations and acronyms

AIDS	Acquired Immune Deficiency Syndrome
BMI	Body Mass Index
CEO	Chief Executive Officer
CRF	Cardiorespiratory fitness
DoH	Department of Health
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
HOD	Head of Department
NCDs	Non-communicable diseases
NDSR	National Department of Sports and Recreation
NSRP	National Sports and Recreation Plan
SPSS	Statistical package for Social Sciences
SRP	Sports and Recreation Policy
TV	Television
UDHR	United Nations Universal Declaration of Human rights
UNICEF	United Nations children fund
WC	Waist Circumference
WHO	World Health Organisation

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 Introduction

Across the globe and more recently in South Africa, the workplace is being recognized as an important setting for initiating health promotion programs aimed at improving the health and wellbeing of employees (Beckowski, Goetzel, Greyling, Klobe-Alexandra, Milner, Nossel, Patel & Tabrizi, 2013). Participation in sport and recreation can lead to improved health of individuals and also in increased productivity levels at work places (Amusa, Toriola, Onyewadume & Dhaliwal, 2008). Sport as defined by the United Nations Children's Fund (UNICEF) is "all forms of physical activity that contribute to physical fitness, mental wellbeing and social interaction. These include play, recreation; casual, organised or competitive sport, and indigenous sports or games" (UNICEF, 2002). Lack of recreation and the increase in sedentary lifestyles among adults has detrimental impact on physical, mental and social health of a nation (Soko, Villa-Vicencio, Korutaro, Tsekwa & Du Toit, 2011).

According to the World Health Organization (WHO), workers represent half of the world's population and on average workers spend one third of their life time in the workplace (WHO, 2007). Work and employees' physical and mental health are interconnected in different ways, work environment factors, including shift work, work stress and work demands, directly impact on employees' health and wellbeing (Schroer, Haupt & Pieper, 2013). The World Health Organisation recommends that people should be given an opportunity to make healthy life choices in the workplace in order to reduce their exposure to health risks (WHO, 2004).

Governments, in cooperation with other stakeholders, have a central role to play in order to create an environment that empowers and encourages behaviour changes by individuals, families and communities to make positive life-enhancing decisions on healthy diets and patterns of physical activity (WHO, 2004). There are compelling reasons for this, primarily related to the increasing burden of chronic diseases on individuals, organizations, communities and societies (Beckowski et al., 2013).

Promoting exercise and improvement of employee fitness is an important component of a holistic proactive approach to the establishment of employee wellness (Wessels & Van der Westhuizen, 2011). Being fit is important for the healthy functioning of the cardiovascular system, the endocrine system and the musculoskeletal system. It helps control weight and reduces stress (Wessels & Van der Westhuizen, 2011). Despite the health benefits of physical activity, the level of participation remains low across populations (Quintiliani, 2007). More than 60% of the world's population fails to achieve the recommended amount of physical activity required to induce health benefits (WHO, 2004). In a survey conducted by the National Department of Sports and Recreation (NDSR) in 2005, it was found that 74, 6 % of individuals of all ethnic groups in South Africa do not participate in any physical activity (NDSR, 2005).

On the other hand, physical inactivity is one of the contributory factors to the development of non-communicable diseases, mainly cardiovascular disease, cancer, chronic respiratory conditions and type 2 diabetes. The four diseases are the world's biggest killers, causing an estimated 35 million deaths each year and responsible for 60 % of all deaths globally in low and middle-income countries (WHO, 2008). Projections made in 2005 showed that chronic diseases will be responsible for 388 million deaths globally in 10 years and that 36 million of these deaths could potentially be prevented (WHO, 2005). It has been reported that in South Africa, non-communicable diseases were estimated to account for 29% of all deaths in 2008, 18% due to cardiovascular diseases and cancers (National Department of Health, 2013).

In response to these, the South African government has put in place various legislations and policies to address issues of employee's health. The Wellness Management Policy for the public service serves as a broad guide for government public service organisations in responding to wellness in the public service world of work. It is largely preventative in nature, focusing on both primary and secondary prevention. It specifically provides line departments with guidelines on how to implement wellness management in the workplace (Department of Public Service and Administration, n.d).

In order to implement the Wellness Management Policy, the Limpopo Department of Health developed a policy on sports and recreation in 2009. The Head of the Department (HOD) recommended that the Sports and Recreation Policy (SRP) be approved for the Department to ensure that employees have an opportunity to look after their physical well-being (Limpopo Department of Health and Social Development, 2009). The Policy covers the following sporting codes: soccer (men and ladies), netball, volleyball, tennis / table tennis, aerobics, traditional and ballroom dance, fun walk and run, choral music, moraba-raba, scrabble, soft-ball, diketo, cards, darts and chess. It was approved that employees of the

department take part in these activities once a week, on Wednesday afternoons (Limpopo Department of Health and Social Development, 2009).
According to Gungaphul, Kassean & Ramnarain (2012) it is important to monitor and evaluate workplace sports and recreations programmes in order to gauge their effectiveness in creating a healthy workplace and hence develop appropriate strategies to meet the objectives of the employers as well as the employees.

Considering the amount of time spent by adults in the workplace as well as the burden of chronic diseases of lifestyles in developing countries such as South Africa, this study therefore aims at determining the perceived factors influencing participation of non-medical staff members in workplace sports and recreation at Elim Hospital.

1.2 Problem Statement

The researcher as a physiotherapist at Elim Hospital observed that most staff members, mainly non-medical staff, consulted the Physiotherapy Department with various musculoskeletal disorders associated with physical inactivity such as back and neck pain, neuro-muscular tension, tension headache, and many more. According to the Elim Hospital Physiotherapy department 2013/2014 financial year statistics, 21% of non-medical staff members presented with the above mentioned conditions at the Physiotherapy department (Elim Hospital, 2014). The researcher further observed that despite the approval of workplace SRP and the dedication of Wednesday afternoons for sports and recreation as a way of promoting healthy lifestyles among employees, many employees were not participating even when invited for games. The policy covers a variety of sports and recreation activities to accommodate/attract a wide range of people; however the majority of staff members seem to be uninterested.

The study therefore seeks to determine the perceived factors influencing participation in workplace sports and recreation among non- medical staff members of Elim Hospital.

1.3 Rationale for the study

Several studies were conducted on factors associated with participation in employee wellness programme in South Africa as well as on the rate of participation in workplace sports and recreation. However, no known studies related to participation in workplace sports and recreation has been conducted in Limpopo.

1.4 Significance of the Study

The recommendations from the study might provide information to the policy makers on measures to be taken in order to ensure compliance with the policy as well as on type of activities and resources required at facilities, hospital management on the type of support they need to provide, and hospital employees on the importance of participation in workplace sports and recreation.

1.5 Aim and Objectives

1.5.1 Aim of the study

The aim of the study is to determine the perceived factors influencing participation of non-medical staff members in workplace sports and recreation at Elim Hospital.

1.5.2 Study objectives

- To assess the level / rate of participation in workplace sports and recreation among non-medical staff members of Elim Hospital.
- To describe the non-medical staff member's perceived susceptibility to and perceived severity of non-communicable diseases.
- To describe the non-medical staff members' perceived benefits of participation in workplace sports and recreation.
- To identify non-medical staff members' cues to action to participation in workplace sports and recreation.
- To identify non-medical staff member's perceived barriers to participation in workplace sports and recreation at Elim Hospital.
- To determine the socio-demographic factors associated with participation in workplace sports and recreation.

1.6 Definitions of terms and key concepts

Perception: "A set of internal sensational cognitive processes of the brain at the subconscious cognitive function layer that detects, relates, interprets and searches internal cognitive information in the mind" (Wang, 2007).

In this study perception refers to the way in which non-medical staff members think and the impression they have about participation in workplace sports and recreation.

Participation: "The individual choices and actions that people make as part of their daily life and that are statements of the kind of society they want to live in" (UNICEF, 2002)

In this study participation refers to playing a sport or physically undertaking a sports / recreation activity while at work.

Workplace: "Place at which a person works" (Wessels & Van der Westhuizen, 2011).

In this study workplace refers to Elim Hospital in the Vhembe District, Limpopo Province.

Sports: "All forms of physical activity that contributes to physical fitness, mental wellbeing and social interaction. These include play, recreation, casual, organised or competitive sport, and indigenous sports or games" (UNICEF, 2002)

Recreation: "An activity that people engage in during their free time, that people enjoy and that people recognize as having socially redeeming values (Hurd & Anderson, 2011).

In this study sports and recreation refers to the following activities: soccer, netball, aerobics, traditional dance, volleyball, tennis, choral music, scrabble, ballroom dance, fun walk / run, moraba-raba, diketo, darts, soft-ball, playing cards, and chess.

Non-medical staff: In this study non-medical staff refers to hospital staff members who are not directly rendering patient care and are employed in the following categories: administrative, executive management, and general workers

1.7 Conclusion

In this chapter the general picture on participation in workplace sports and recreation was given. The statement of the problem, significance, rationale, aim and objectives of the study were presented. The chapter ends with the definition of key terms used in the study.

In the following chapter a detailed literature review pertaining to this study is presented. The conceptual framework was used to guide the review of perceived factors influencing participation in workplace and recreation.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature reviewed related to the perceived factors influencing participation of employees in workplace sports and recreation. It is divided into data-based and conceptual literature. The Health Belief Model (HBM) is described and used as the theoretical framework.

2.2 Data-Based Literature

2.2.1 Overview of participation in physical activity worldwide

More than 60% of the world's population fails to achieve the recommended amount of physical activity required to induce health benefits (WHO, 2004). In a global surveillance of physical activity levels of adults aged 15 years and older conducted in 2012, it was found that worldwide, the prevalence of physical inactivity varied across the WHO regions, as follows: 17% in South-East Asia, 43% among the Americans 43% in the Eastern Mediterranean regions, Europe 34.8%, South East Asia 17.0%, Western Pacific 33.7% and Africa 27.5% (Hallal, Andersonn, Bull, Guthold, Haaskel & Ekelund, 2012). A survey conducted in 22 African countries to describe and compare levels and patterns of physical activity among adults in these countries focused on various domains of life such as work, transport and leisure time, the patterns varied across different settings and cultures. In the study, prevalence ranged from 46.8% to 96.0% (Guthold, Louazani, Riley, Cowman, Bovet, Damasceno, Sambo, Tesfaye & Armstrong, 2011). In a survey conducted by the National Department of Sports and Recreation (NDSR) in 2005 in South Africa, it was found that 74.6 % of individuals of all ethnic groups in South Africa do not participate in any physical activity (NDSR, 2005).

Several studies have also been conducted to determine the level of employees' participation in workplace sports and recreation. In Canada almost two thirds of Canadians are employed either full-time or part-time. A population-based study was conducted in 2006 and indicated 48% availability of recreational events through work. However only 39% of the employees actually participated in them (Cragg, Wolfe, Griffths & Caneron, 2006). Similar results were

reported in a study conducted in Germany on the levels of engagement in physical activity among the total German working population, four out of ten employed persons (39.2%) were found not to engage in sports (Schneider & Becker, 2005). A systemic review was conducted on determinants of participation in worksite health promotion programmes by Robroek, Van Lenthe, Van Empelen and Burdorf (2009), the study focused on characteristics of participants and non-participants in worksite health promotion programmes aimed at physical activity and or nutrition. In the study, it was found that the level of participation in worksite health promotion was below 50%.

The rate of participation in workplace sports and recreation is also low in South Africa. In a cross-sectional study conducted in sixteen various organisations that contribute to employee wellness, it was found that five organisations' participation rates were 20% and below, another five of the organisations' participation rates were between 30% and 50%, three organisation's participation rates were however 60% and higher, and two organisations could not provide participation rates (Sieberhagen, Pienaar & Els, 2011).
Skaal and Pengpid (2011) conducted a study in a public tertiary hospital on physical activity, fitness level and health problems of healthcare workers in South Africa and found that the majority of health care workers had low levels of physical activity, approximately 25% of the hospital staff reported that they engaged in regular exercise and / or physical activity, the majority of the staff were found not to engage in regular exercise and /or physical activity.

2.2.2 Socio-demographic factors associated with participation

2.2.2.1 Gender and participation

Four in every ten males are likely to participate in sport and recreation while only one in ten females is likely to participate (NDSR, 2005). Results from a survey conducted by the NDSR in South Africa to determine participation patterns in sports and recreation, indicated participation rate of 42.6% in males and 11.2% in females (NDSR, 2005). According to Hallal, Andersonn, Bull, Guthold, Haaskel and Ekelund (2012), globally women are more inactive (33. 9%) than men (27. 9%). This is supported by findings of a study conducted in Northern Ireland on civil servants who attended a workplace lifestyle and physical activity programme, in this study, it was found that almost two thirds (59%) of participants did not engage in regular moderate physical activities, it was revealed that females were found to be twice as likely not to than men (Addley, Mcquillan & Ruddle, 2001). Similar results were reported by Odunaiya, Aderibibe and Oguntibeju (2011) who conducted a study on physical

exercise, knowledge, attitudes and habits of literate women in Western Nigeria. The results showed that with regards to sporting activities, women had poor habits as about 1/5th of the women never engaged in any sporting activity at all. A greater percentage of the women occasionally/seldom/sometimes took part in sporting activity and less than 1/4thoften took part in sport (Odunaiya et al., 2011). This is in line with findings from a study conducted in Saudi Arabia which revealed that there were significantly more inactive females (98.1%) than males (93.9%), (Al-Nozha, Al-Hazzaa, Arafah, Al-Khadra, Al-Mazrou, Al-Maatouq, Khan, Al-Marzouki, Al-Harthi, Abdullah & Al-Shahid, 2007). Cragg, Wolfe, Griffths and Caneron (2007), concurred with this by indicating that men are more likely to participate in sports and related events offered at work than females.

In a study conducted to explore the recreation pursuits of working women and their perception regarding recreation, it was found that participation in recreation activities poses problems for many women. They experience the dilemma of choosing between their jobs, family commitment and engaging in recreation activities. It was then concluded that if working women are to take their health and well-being seriously, there needs to be a change of mindset (Nolan & Surujlal, 2009).

2.2.2.2 Age and participation

In order to promote and maintain health, all healthy adults aged 18-64 years need moderate intensity aerobic (endurance) physical activity for a minimum of 30 minutes five days a week, or vigorous-intensity aerobic physical activity for a minimum of 20 minutes three days a week (Haskell,2007). Alternatively 10 000 steps per day or more of walking is considered ‘active’ (Tudor & Basset, 2004). In general participation in sports and recreation varies among various age groups. In a population based survey conducted among adults in a rural district of Uganda, it was found that 51 % of the population was physically inactive (Mondo, Otim, Akol, Musoke & Orem, 2013). In a survey conducted by the NDSR to determine participation patterns in sports and recreation in South Africa it was found that only 34.4 % of age group 21-25 years and 18, 8% of age group 26-60 years participated in physical activities (NDSR, 2005).

In another study, physical inactivity prevalence among Saudis aged 30-70 years was found to be very high at 96, 1% (Al-Nozha et al., 2007). The study further revealed that inactivity prevalence increased with increasing age category and this is in line with what was reported by Skaal (2011), who conducted a study in a South African hospital and found that there was high level of inactivity among older staff members.

2.2.2.3 Education level and participation

It has been observed that people with higher education levels are more likely to engage in organised physical activity than their counterparts with lower education (Odunaiya, Aderibigbe & Oguntibeju, 2011). This is supported by findings of Al-Nozha et al. (2007), who in their population based survey on prevalence of physical activity and inactivity among Saudis, reported that inactivity prevalence decreased with increasing education level.

In a study conducted in Greece to determine differences in perception of constraints on recreational sport participation, it was found that the less-educated respondents were significantly constrained (Beaglehole, 2012).

These findings are contrary to the findings of a study conducted among 2,544 working residents in Warsaw, Poland. In the study, it was found that there is no significant association between education level and participation (Biernat & Tomaszewski, 2015).

2.2.2.4 Type of work and participation

A longitudinal study conducted by Person, Colby, Bulova and Eubanks (2010) among University employees in East Carolina, revealed that out of the 481 employees, managers and leadership team members only 50 (10,4%) attended the “Wellness Wednesday” which is about healthy living at least once during the 10 week programme.

A cross-sectional study carried out on a group of executive employees from selected African countries indicated that 71,6 % of top level managers did not participate in leisure time physical activity and 62,9% of middle managers were not participating (Mohlala, Monyeki, Strydom & Amusa, 2012). This was supported by Thangavhuelelo, Monyeki, Strydom, Amusa and Temane (2013) who indicated that due to work demand; most top and middle level managerial employees become physically inactive. It was also found that those employees with physically strenuous jobs and frequent overtime work are significantly less likely to engage in leisure time physical activity. It was then recommended that continuous programmes should be brought nearer to the workplace (Schneider & Becker, 2005). This is contrary to findings of a study conducted in a South African public hospital among medical and non-medical staff. From this study, there was no significant relationship between participation in sports and recreation and job category (Skaal, 2011).

2.2.3 Perceived susceptibility to and severity of non- communicable diseases

In developed countries, people who perceive susceptibility to an illness take preventive actions early. This is entirely different in most developing countries where preventive actions

are viewed as unnecessary practice, people in developing countries rather believe in curative health actions instead of preventive health practices (WHO, 2003). This was supported by Oslon and Chaney (2009) who indicated that there are various reasons why people do not participate in worksite health promotion programmes one of the reasons was that some people do not feel susceptible to a disease or illness (perceived susceptibility). Oslon and Chaney (2009) further indicated that employees need to be able to identify what their health risks are so that they can make an informed decision about participating in workplace health promotion. An employee will be less likely to participate if he or she feels the health issue is of no concern to him/her.

On the other hand, most people know that non-communicable diseases are serious (National Department of Health, 2013). A study by Beaglehole and Yach (2003) on the prevention and control of non-communicable diseases among adults, found that 57% of adults were afraid of developing these diseases sometime in their life and 90% thought developing non-communicable has serious consequences. In this study, perceived seriousness varied by age group and level of education.

A study conducted by Klobe-Alexander, Buckmaster, Nossel, Dreyer, Bull, Noakes and Lambert (2008), reported that 70% of participants felt that non-communicable diseases are very serious and half of them think that it is treatable.

2.2.4 Perceived benefits of physical activity

Participation in sports and recreation can lead to improved health of individuals and increased productivity at workplaces (Amusa et al., 2008). Physical activity can prolong life, improve quality of life and lower the risk of heart disease, stroke, diabetes, colon cancer, breast cancer and osteoporosis (Colditz, Nguyen & Dart, 2014). These conditions are known as non-communicable diseases (NCDs) and are defined as being slow in onset and progression, and long in duration (Klobe-Alexander & Lambert, 2013). Participation in sport and recreation is also an important component of weight management since it can lead to modest weight loss in overweight and obese adults and can also help adults to maintain their weight (Colditz et al., 2014). In a prospective cohort study by Hu, Stampfer, Colditz, Ascherio, Rexrode, Willet and Manson (2000), it was found that physical activity was associated with reduced risk of stroke in a dose-response manner. Women who walked briskly for at least 1 hour a week were 30% less likely to have a stroke than sedentary women were. Those who walked at even quicker paces had a further reduction in risk. Similar results were reported by Sattelmair, Kurth, Buring and Lee (2010) who also found

participation in physical activity to be associated with lower risk of development of stroke in women.

A longitudinal study by Helmrich, Ragland, Leung and Paffenbarger (2001) found that leisure-time physical activities such as walking, stair climbing and sports were inversely related to the development of non- insulin dependent diabetes mellitus. A cohort study conducted by Farrel, Cortese, LaMonte and Blair (2007) among 38,410 healthy men who completed a baseline health examination between 1970 and 2001, found that during the mean follow-up period of 17.2 years, 1037 cancer deaths occurred. Clinical measures included body mass index (BMI), waist circumference (WC), and percentage body fat and cardiorespiratory fitness (CRF) level. Mortality rates were significantly lower in fit compared with unfit men within each stratum of BMI, WC and percentage body fat. Similar results were reported in a study by Sui, LaMonte, Laditka, Hooker and Blair (2012) who conducted a cohort study among 2603 adults aged 60 years and older, baseline health examination was conducted during 1979-2001. Results from this study showed that there were 250 deaths during a mean follow-up of 12 years. In the study it was concluded that fitness was a significant mortality predictor for older adults.

Several studies have confirmed that it is for some of these health benefits that some individuals engage in workplace sports and recreation. In a six-month follow up study on barriers and facilitators for participation in health promotion programmes among employees, “to improve health” was mentioned as a facilitator to worksite health promotion programmes (Rongen, Robroek, Van Ginkel, Lindeboom, Altink & Burdorf, 2014). “Positive effects on mental well-being”, “wish to be fit”, “wanting to lose weight” were motivation to exercise (Withall, Jago & Fox, 2011). In other studies “socialising”, “fun”, “diversion”, “reduction of stress”, “a balanced life” and “improved health” were provided as reasons for participation in workplace sports and recreation (Nolan & Surujal, 2009; Allender, Cowburn & Foster, 2006). Other studies further concurred with this and reported that individuals who exercise at least two to three times a week experienced less depression, anger, cynical distrust and stress than those exercising less frequently or not at all as this is associated with the release of endorphins during physical activity (Hassmen, Koivula & Uutela, 2000; WHO, 2002). Physical activity provides a time-out from the stresses of everyday life, and this can obviously lead people to feel more relaxed and less anxious. Being active has also been shown to enhance self-efficacy (or confidence in one’s ability to do things), and this feeling runs counter to the feelings of depression and anxiety as well as general promotion of psychological wellbeing (Colditz et al., 2014).

2.2.5 Cues to action

Some other important factors that influence participation include managerial support, amount of time and resources required of the employee. In a study by Oslon and Chaney (2009), it was found that managers that actively participate will serve as a positive influence for employee participation. Further, activities are more promoted and have a larger impact when key leaders support the programmes (Oslon & Chaney, 2009). Hassard, Wang and Cox (2012) concurred with this in a literature review that recommended that senior management commitment as well as supervisor's support and leadership are important for the recruitment into and continued participation of employees in workplace health promotion programmes. It was further shown that the commitment of employers and managers will be demonstrated by: providing and continuing to support the allocation of necessary financial and organisational resources to such types of programmes, showing visible endorsement of goals and objectives concerning health promotion, displaying exemplary health promotion and safety behaviour and providing and encouraging healthy and safe working environment.

Skaal (2011) suggested that employers need to contribute to increasing workers' participation by putting polices in place, changing the environment to accommodate physical activity and allowing time for the staff to participate in physical activity. In a survey conducted among adults in a rural district of Uganda by Mondo, Otim, Akol, Musoke and Orem (2012) it was recommended that in order to aid participation "organizations should offer recreation facilities that are of interest to employees bearing in mind their different taste, gender and age among other considerations". This was supported by Gungaphul et al., (2012) who indicated that employers should not ignore the fact that there are different groups of people in their respective organisations and that the needs for recreation are not necessarily the same.

2.2.6 Perceived barriers to participation in workplace sports and recreation

There are various reasons why people do not participate in worksite health promotion programmes. For some people it may be the cost, such as time and money (perceived barriers) (Olson & Chaney, 2009). WHO also indicated the following potential barriers to the general population in physical activity: lack of awareness about benefits, lack of national health, sports, educational and related policies (WHO, 2003). The WHO (2003) further indicated other potential barriers such as perception of the value of sport in the society, prevailing local culture, economic and other competing pressures, time constraint, personal

motivation, lack of support from family and friends, lack of access to sport facilities and the lack of availability of local physical activity programmes.

A longitudinal study by Person et al. (2010) on barriers to participation in a worksite wellness programme, revealed the following top three barriers: insufficient incentives, inconvenient locations and time limitations. The employees reported that it was often difficult for them to attend without disrupting their shift schedules and responsibilities. It was further revealed that they were not adequately informed and made aware of the programme. Similar results were reported by Withall et al. (2011) in a mixed method study conducted among low income groups. Results from this study showed that people felt uninformed about what was available. In addition the majority of participants cited word of mouth as their main source of information. In a six-month follow up study on barriers and facilitators for participation in health promotion programmes among employees, a number of barriers perceived by employees as preventing them from participating in workplace health promotion were reported. The most frequently mentioned barrier was that participants felt they were already healthy (Rongen et al., 2014).

In a qualitative study on employees' perception of influences on physical activity within the workplace conducted in Australia, it was found that the major emerging themes most commonly reported as influencing factors on physical activity during working hours were the following: lack of time throughout the working day (due to short breaks and high work commitments), lack of intention to be active during work hours (due to perceptions that the workplace is not an appropriate setting for physical activity), unsupportive social environment (due to limited company focus), other employees not active, and workplaces not having a culture of taking regular breaks, unsupportive physical environments (due to limited access to on-site facilities) and a lack of safety in the outside environment and unsupportive policy environment (due to limited incentives to be active) (Bennie, Salmon & Crawford, 2010).

In a study on barriers to sports and recreation participation in three communities in Botswana with a target population of men and women aged 18-40 years, it was found that men and women were constrained by socioeconomic and facility barriers (Sayed, Meyer & Monyeki, 2004). Similar results were reported in a study that was done in six locations in Botswana on perceived barriers to sport and recreation participation. In this study 1664 people (adults and youth) participated. Results from this study indicated that participation was higher in the urban areas as compared to the rural areas. This is associated to the well-developed infrastructure in urban areas. An analysis of the categories of barriers to participation in sports and recreation in the six communities identified the following factors: socio-cultural,

environmental, and socio-economic and aptitude. These factors cut across all the six locations. The study also revealed that lack of money, too much work, lack of transport and other factors were also perceived barriers that were reported across the six geographic locations (Amusa et al., 2008). A cross-sectional study on physical activity, fitness level and health problems among 200 hospital employees in South Africa found that more than 80% indicated lack of motivation and more than 80% reported lack of support at work, more than 50% reported lack of family support, while 45% reported lack of an exercise facility or access to one as barriers (Skaal & Pengpid, 2011).

In order to increase participation rates, it is important to identify all of the potential barriers and minimize these barriers as much as possible, it is therefore crucial that the workplace health promotion programme administrator conduct a needs assessment before implementing a programme (Oslon & Chaney, 2009).

2.2.7. Legislation and policy framework for employee wellness

With lifestyle behavioural choices contributing to a significant proportion of chronic diseases globally, strategies to improve behavioural risk factors should be considered in a variety of settings. The workplace offers several advantages in that a substantial number of the working population can be reached and multiple levels of influence on behaviour can be targeted (Quintiliani, 2007). The workplace has been recognized internationally as an appropriate setting for health promotion. The importance of workplace health promotion was addressed in 1950 and later updated in 1995 in a joint International Labour Organization / WHO session on occupational health (Quintiliani, 2007).

Since then, health promotion in the workplace has been broadly recommended by international bodies through numerous charters and declarations, including the 1986 Ottawa Charter for Health Promotion, which indicates that “health promotion should develop personal skills enabling people to learn (throughout life), to prepare themselves for all of its stages and to cope with chronic illness and injuries is essential”. This has to be facilitated in schools, at home, work and community settings (Ottawa Charter, 1986). The 1997 Jakarta Declaration on leading health promotion into 21st century states that particular settings offer practical opportunities for the implementation of comprehensive strategies. These include mega-cities, islands, cities, municipalities, local communities, markets, schools, the workplace and health care facilities (Jakarta declaration, 1997) and the 2005 Bangkok Charter for health promotion in a globalised world.

Article 24 of the United Nations Universal Declaration of Human rights (UDHR) states that "everyone has the right to rest and leisure, including reasonable limitations of working hours and periodic holidays with pay" (UDHR,1948). The South African Constitution Act No.108 of 1996 and its bill of rights indicate that "everyone has the right to an environment that is not harmful to their heath or wellbeing" (Republic of South Africa, 1996). The first strategic objective in the National Sport and Recreation Plan (NSRP) of the Republic of South Africa approved by cabinet in 2012 states "to improve health and well-being of the nation by providing mass participation opportunities through active recreation". The aim of this objective is to get the South African population more physically active in order to improve their health and wellbeing (NSRP, 2011). The "Vuka South Africa–Move for your health "campaign is an example of an initiative adopted by the national government, promoting physical activity for health (Klobe-Alexander, Bull & Lambert, 2012).

In a review by Strydom (2013), workplace health promotion is supported. The review indicated the projected population pyramid of South Africa's population by the year 2050. It was recommended that the age group 25-35 years should be targeted with intervention strategies in order to bring about a paradigm shift to take responsibility for their own health and well-being. It was further recommended that the major part of this group may be employed company wellness programmes aiming at the improvement of employee health and well-being is a very strategic approach.

The Wellness Management Policy and Employee Health and Wellness framework serves as a broad guide for government public service organisations in responding to wellness in the public service world of work in South Africa, the policy is applicable to all national and provincial departments and the objectives are to:

- Meet wellness needs of public servants through preventative and curative measures
- Promote the physical, social, emotional, occupational, spiritual, financial and intellectual wellness of individuals
- Create an organizational climate and culture that is conducive to wellness and comprehensive identification of psycho-social health risks and
- To promote work- life balance through flexible policies in the workplace to accommodate work, personal and family needs.

In order to implement the Wellness Management policy the Limpopo Department of Health developed a policy on Sports and Recreation with the following objectives:

- To promote healthy lifestyles

- To promote team spirit and cooperation among employees
- To promote a friendly and supportive working environment
- To prevent health hazards that may have impact on work performance and
- To promote interdepartmental relationship

2.2.8 Consequences of physical inactivity

Non-communicable diseases (NCDs), which include cardiovascular disease (mainly heart diseases and stroke), type 2 diabetes, some cancers and chronic respiratory disease affect people of all ages, nationalities and classes (Daar, Singer, Persad, Pramming, Matthews, Beaglehole, Bernstein, Borysiewicz, Colagiuri, Ganguly, Glass, Finegood, Koplaan, Nabel, Sarna, Sarrafzadegan, Smith, Yach & Bell, 2007). Daar et al. (2007) further indicated that the conditions cause the greatest global share of death and disability, accounting for around 60% of all deaths worldwide. Some 80% of the chronic diseases deaths occur in low and middle income countries. These account for 44% of premature deaths world-wide (WHO, 2008). The number of deaths from these diseases is double the number of deaths that result from a combination of infectious diseases, including Human Immunodeficiency Virus / Acquired Immune deficiency Syndrome (HIV/AIDS), tuberculosis and malaria, maternal and perinatal conditions, and nutritional deficiencies. It is predicted that these diseases will be causing seven out of every 10 deaths in developing countries by the year 2020 (Habib & Saha, 2010).

Chronic NCDs are largely due to preventable and modifiable risk factors (Puoane, Tsolekile, Sanders & Parker, 2008). Three of the most important risk factors for NCDs are the following: unhealthy diet, physical inactivity and tobacco use. These are related to lifestyle choices. Knowing the risk factors for chronic diseases means that approximately 80% premature heart disease, stroke, and of type 2 diabetes and 40% of cancers are preventable.

A population based survey on prevalence and distribution of NCD in a rural Ugandan district found that the prevalence of hypertension was 22, 1% for men and 20.5% for women. Fifteen percentage of men and 16, 8% of women were overweight, 4, 9% of men and 9% of women were obese and 9% were diabetic (Mondo et al., 2012). According to the first national burden of disease study conducted in the year 2000 in South Africa, non-communicable diseases accounted for 37% of deaths in South Africa. The study further revealed that among the NCDs, stroke is the most important for females and ischaemic heart disease is the most important for males. Diabetes mellitus, hypertension, heart disease and

cervical cancer feature in major causes of years of life lost for females, while chronic obstructive pulmonary disease, diabetes mellitus, cirrhosis of the liver and lung cancer feature for males (Bradshaw, Groenewald, Laubscher, Nannan, Nojilana, Norman, Pieerse & Schneider, 2003).

The burden of NCDs can be reduced by addressing the risk factors (Klobe-Alexandra, Buckmaster, Nossel, Dreyer, Bull, Noakes & Lambert, 2008). Health promotion strategies, with strong focus on disease prevention, are needed to empower people to act both individually and collectively to prevent risky behaviours and to create economic, political and environmental conditions that prevent NCDs and their risks (Habib & Saha, 2010). Health promotion strategies, with a strong focus on disease prevention are needed.

The greatest potential in treatment of NCDs is influencing the risk-factor distribution in the population through general lifestyle changes, notably in diet and physical activity. This is a cost-effective and sustainable way for controlling such diseases. Successful primary prevention not only reduces human suffering and increases economic productivity but also limits the growing cost of treatment (WHO, 2002).

2.3 Conceptual Literature

A number of psychosocial theories have been developed to predict, explain, and change health behaviours (Sutton, 2002). One theory that has received increased attention from health and mental health practitioners is the Health Belief Model (HBM). It is a psychological model that attempts to explain and predict health behaviours by focusing on the attitude and beliefs of individuals. This model was developed initially in the 1950s by a group of social psychologists in the United States public health service in an effort to explain the widespread failure of people to participate in programmes to prevent or detect disease.

The HBM proposes that health behaviour can be predicted from the individual's appraisal of the risks and benefits of compliance. This model holds that health behaviour is a function of both knowledge and attitude. According to Sutton (2002) there are four core constructs: perceived susceptibility/vulnerability, perceived severity, perceived benefits and perceived barriers (Figure 2.1). The theory will be helpful in this study to describe the behaviour of the target population. Perceived susceptibility / perceived vulnerability is the individuals view on the possibility of developing chronic diseases of lifestyles if they were to continue not taking part in sports and recreation. Perceived severity refers to the subjective assessment of how

serious chronic diseases of lifestyle are and its consequences as perceived by the individuals. Perceived benefits refer to the perceived advantages/benefits of participation in sports and recreation including the extent to which it reduces the risk of the development of chronic diseases of lifestyle. Perceived barriers (or perceived costs) refer to the perceived obstacles that may prevent or hinder individuals from participation in sports and recreation. These factors are commonly assumed to combine additively to influence the likelihood of taking part in workplace sports and recreation. Thus high susceptibility, high severity, high benefits and low barriers are assumed to lead to a high probability of participation in workplace sports and recreation. Another factor that is frequently mentioned in connection with the HBM is cues to action (events that trigger behaviour) (Sutton, 2002). Self-efficacy - the individual's perceived capacity to take part in workplace sports and recreation is a further key component of the model (Morris, Marzano, Dandy & O'Brien, 2012).

The HBM has been used in research to explore a variety of health behaviours in different populations. In a longitudinal study by Person et al. (2010) on barriers to participation in worksite wellness programme, health beliefs were expressed as comments such as not attending the wellness programme because of perceived "sufficient health knowledge" and "having a healthy family". Rongen et al. (2014) reported that employees whose self-perceived health was less than good were more likely to have a positive intension towards participation in workplace health promotion programme however such employees were not more likely to actually participate during follow up.

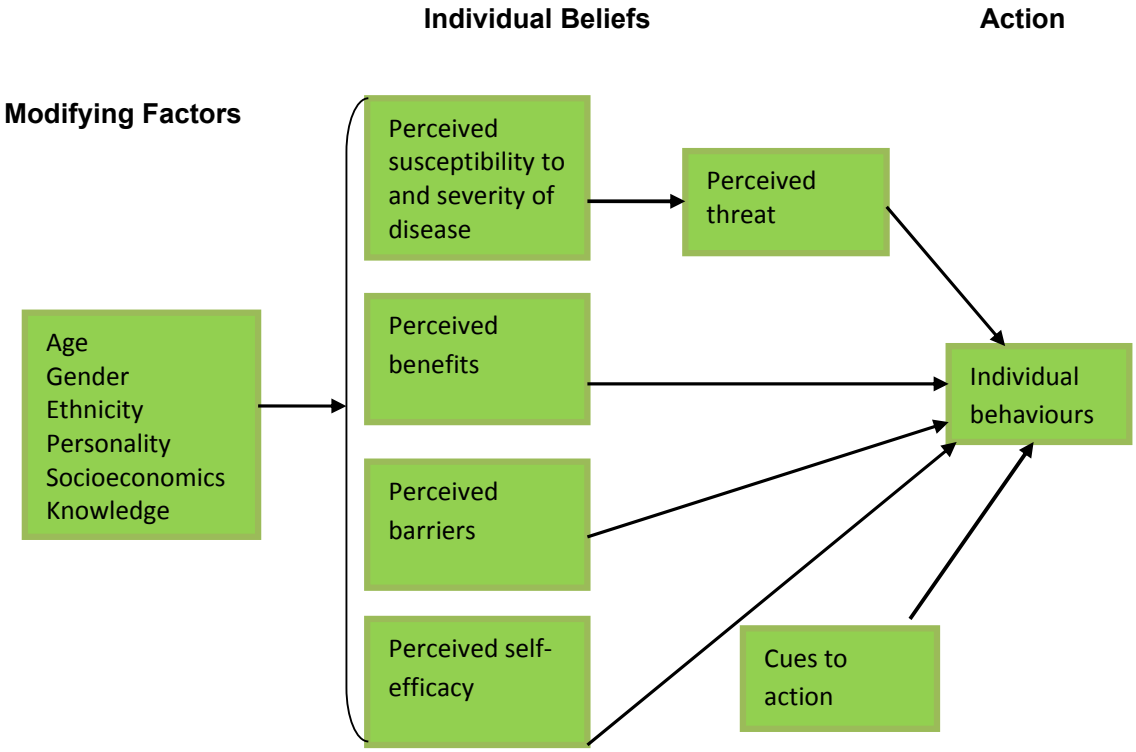

Figure 2.1: The Health Belief Model

Source: Glanz, Rimer & Viswanath, 2008

2.4 Conclusion

Sports and recreation play an important role in the management of NCDs, as these are largely due to preventable and modifiable risk factors. Despite the known benefits of sports and recreation to health, this modality continues to be under-utilized. Various legislation, chatters and declarations have been put in place to emphasize the importance of workplace health promotion and to guide employers on the establishment of various programmes as a way of promoting health of employees. This study by using the HBM, seek to establish the perceived factors influencing participation of non-medical staff members at Elim Hospital.
In the next chapter the methodology undertaken by this study is presented.

CHAPTER 3
METHODOLOGY

3.1 Introduction

This chapter presents the methodology of the study. The research design that was used, the population, sample of non-medical staff and the procedures that were followed to obtain the sample are discussed. Data collection processes and the mode of data analysis are also discussed, as well as ethical considerations for the study.

3.2 Study design

A descriptive quantitative, cross-sectional survey was conducted to determine the perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital. A cross-sectional survey was chosen as it involves examining data at one point in time (Akinsola, 2005).

3.3 Study setting

The study was conducted at Elim Hospital, which is located in the Vhembe District in Limpopo Province, South Africa. There are four local municipalities in the Vhembe District namely: Thulamela, Makhado, Mutale and Musina. Elim Hospital is located in the Makhado Municipality, and it is one of the three hospitals within the municipality. It is classified as a district hospital with a total staff establishment of 1419. According to the October 2016 Elim Hospital post status, a total of 892 posts were filled, of which 867 staff members were employed permanently. Out of these, 247 were non-medical staff as indicated in Table 3 below. All the non-medical staff members are blacks of Venda, and Tsonga ethnic groups.

Table 3.1: Non-medical staff members' categories

Staff Category	Gender distribution		Total
	Female	Male	
Administrative workers	30	40	70 (28.3%)
Executive Management	3	5	8 (3.2%)
General Workers	93	76	169 (68.5%)
Total	**124 (51%)**	**123 (49%)**	**247(100%)**

Source: (Elim Hospital, 2016)

3.4 Study population and sample

3.4.1 The study population

The population of the study included all non-medical staff members who were permanently employed by the Limpopo Department of Health at Elim Hospital during the time of the study.

3.4.2 Sampling

Since the total number of non-medical staff members at Elim hospital was 247, a total population was used in the study. Twenty five (10%) of the population was used for the pre-test, the total sample size was therefore 222. The targeted number of 222 could not be reached as some of the non-medical staff members were not on duty during data collection, some were attending meetings and a few declined to participate. A total of 135 participants were interviewed. The sample was grouped into three categories according the type of occupation as follows: Fifty five administrative workers, 5 executive management and 75 general workers.

3.5 Data collection instrument

A researcher-administered structured questionnaire (Appendix A) was used to collect data. A researcher-administered method was used in order to assist general workers who dominate the non-medical staff members of Elim Hospital and most of them cannot read and write.
The questionnaire was in English and consisted of four sections:
Section A comprised of information on socio-demographic characteristics of the participants.
Section B comprised of questions to assess the rate / level of participation of employees in

workplace sports and recreation. **Section C** comprised of questions to explore the factors that facilitate participation in workplace sports and recreation based on the following Health Belief constructs: Perceived susceptibility, perceived seriousness / severity, perceived benefits and cues to action to participation in sports and recreation. Each question was rated using a Likert scale. **Section D** comprised of questions to identify the perceived barriers to participation in workplace sports and recreation, each question was rated using a 5 point Likert scale ranging from strongly agree to strongly disagree.

3.5.1 Pre-test

The questionnaire was pre-tested in order to assess the objectivity of the instrument. Twenty five staff members (10% of the study population) were used for the pre-test. The pre-test was done at the same location of the study using non-medical staff members from the three staff categories who were then be excluded from the main study. There were no amendments made to the questionnaire after the pre-test as all questions well understood.

3.6 Data collection process

The researcher communicated with various sectional heads, so as to introduce the study and explain what the study entails. Appointments were then made with various sections to give information on the study as well as to get informed consent from those interested in taking part. Information letters (Appendix B) and consent forms (Appendix C) were handed out to individuals who could read and write while information letters and consent forms were read (by the researcher) to those who could not read or write and those agreeing to participate were asked to make a cross on the consent form. Appointments were then made with individuals who had given consent to the study for the researcher to conduct interviews to complete the questionnaires. Interviews were conducted during lunch and tea time. Appointments were also made with general workers and patient administrative clerks who were on night duty during data collection. The duration of data collection was two weeks. Data collection among the three categories of staff was done concurrently over the 2 weeks period, until all targeted participants were covered.

3.7 Data analysis

Statistical Package for Social Sciences (SPSS) version 23 as well Microsoft Excel was used to analyse the data. Data were coded and summarised in order to make information

manageable. Descriptive statistical method was used to analyse the socio-demographic characteristics of participants, rate/level of participation in sports and recreation activity as well as perception of participants on the constructs of the Health Belief Model such as perceived susceptibility, perceived severity, perceived benefits, perceived barriers and cues to action. Chi-square test was carried out to determine level of significance of correlations between different variables. The results were presented by means of tables and charts.

3.8 Ethical considerations

The proposal was presented to the Higher Degree Committee of the School of Health Sciences and the University higher degree committee to obtain ethical clearance. Permission to conduct the study was obtained from the Limpopo Department of Health (Provincial and District) (Appendix E and Appendix G) as well as from the Chief Executive Officer (CEO) of Elim Hospital (Appendix J).
All ethical principles relating to human subjects were maintained during the study as follows:

Principle of respect for human dignity: Participants have the right to self-determination and full disclosure. Therefore participation in the study was on voluntary basis and the researcher disclosed all the important information pertaining to the study before the commencement of the study. All participants were treated with respect and dignity at all times.

Informed Consent: Those who were willing to participate were asked to voluntarily sign a consent form (Appendix C). The consent form was separated from the actual questionnaire in order to maintain the individual's anonymity. Participants were at liberty to withdraw from the study at any time during the study.

Right to Privacy and confidentiality: Anonymity was assured by not including names of participants in the questionnaire. Data were reported in staff categories and not individually. Confidentiality was maintained at all times during the study and afterwards. Questionnaires were put them in an envelope which was immediately sealed by the researcher. The researcher was the only one who opened the envelopes after collection of data.

3.9 Validity and Reliability

3.9.1 Validity

Validity is defined as the extent to which a concept is accurately measured in a quantitative study (Haele & Twycross, 2015). In this study face and content validity was ensured by consulting a wide range of literature on the variables of interest as well as by submitting the draft instrument to the supervisors for expert scrutiny regarding the relevance of each item on the instrument.

3.9.2 Reliability

Reliability is the extent to which a research instrument consistently has the same results if it is used in the same situation on repeated occasions (Haele &Twycross, 2015).
The reliability of this study was measured using the test re-test method of reliability testing during the pre-test. This was done by administering the tool to 10% of the study population at Elim Hospital on two occasions, one week apart. Comparison of scores obtained was done; a correlation coefficient (r) of 0.7 was obtained, indicating high reliability of the instrument.

3.10 Conclusion

In this chapter the method used in the study, sampling procedure and the instruments used were outlined. A brief summary of the data analysis procedure was also given. The results of the analysis are tabulated and presented in the next chapter.

CHAPTER 4
RESULTS

4.1 Introduction

This chapter presents the data collected from the 135 respondents who participated in the study. A descriptive quantitative, cross-sectional survey was conducted to determine the perceived factors associated with participation in workplace sports and recreation activities among non-medical staff members at Elim Hospital. The results are presented using tables and charts.

4.2 Descriptive data

In this section, statistical analysis of socio-demographic and health related characteristics, level of participation in sports and recreation as well as type of activities and frequency of participation is presented. The findings are presented as descriptive statistics using frequency distributions, cross-tabulations and percentages. Constructs of the HBM are also presented as frequency distribution and percentages.

4.2.1 Socio-demographic and health related characteristics

A total of 135 respondents participated in the study. Table 4.1 below summarizes the socio-demographic characteristics of the study participants.

As indicated in Table 4.1, 68(50%) of the participants were males and 67(50%) were females. Most 54(40%) respondents were between the ages of 50-59 years and the least 12(9%) were in the age group of 60 years and above. The majority of respondents 96(71%) were married. Nearly half 57(42%) had a long duration of service (13 years and more) at Elim Hospital. With regards to education, almost a quarter 33(24%) had a matric, while over a quarter, 43(32%) were in possession of a diploma. Only 7(5%) had a university degree and 8(6%) had postgraduate qualifications. A few number of respondents 40(33%) indicated they had “other” qualifications. Administrative staff constituted 55(41%) of the respondents, only 5(4%) of the respondents were members of the executive management and more than half 75(56%) of the respondents were general workers.

Table 4.1 Socio-demographic characteristics of respondents (n=135)

Variables	Frequencies (n)	Percentage (%)
Gender		
Male	68	50.4
Female	67	49.6
Age (Years)		
30-39	30	22.2
40-49	39	28.9
50-59	54	40.0
60 and above	12	8.9
Marital Status		
Single(never married)	19	14.1
Married	96	71.1
Divorced	4	3.0
Separated	9	6.7
Widowed	7	5.2
Years at workplace		
0-3 years	9	6.7
4-6 years	15	11.1
7-9 years	19	14.1
10-12 years	35	25.9
13 years and more	57	42.2
Education		
Grade 12	33	24.4
Diploma	43	31.9
Degree	7	5.2
Postgraduate	8	5.9
Other	44	32.6
Occupation category		
Administrative	55	40.7
Executive management	5	3.7
General workers	75	55.6

4.2.1.2 Health related characteristics of participants

Participants were asked to rate their health as being poor, fair, good or very good. Sixty-two percent reported to have a good health; 29% very good health; 8% fair and only 0.7% reported to have poor health, as illustrated in Figure 4.1.

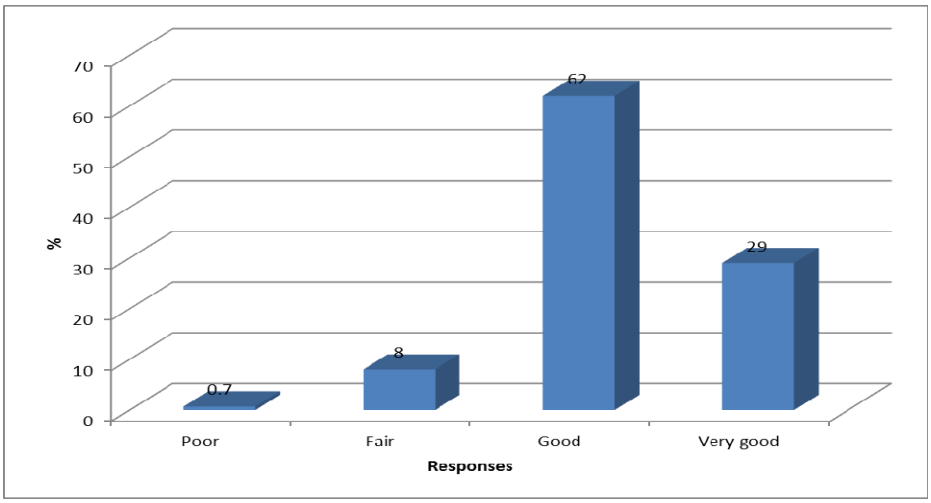

Figure 4.1 Perceived general health status of participants

4.2.1.3 Medical history of participants

Participants were asked about the history of chronic conditions they suffered from. As illustrated in Table 4.2, the majority of participants 108(80%) reported no history of chronic conditions; 21(15.6%) indicated they suffered from hypertension; 2(1.5%) indicated they suffered from diabetes; 2(1.5%) from a combination of chronic conditions and 2(1.5%) indicated they suffer from "other" chronic conditions. Participants were also asked whether they were currently taking medication for chronic conditions. Only 27 (20%) of the respondents indicated that they were on treatment for chronic conditions.

Table 4.2 History of chronic conditions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diabetes	2	1.5	1.5	1.5
	Hypertension	21	15.6	15.6	17.0
	Combination	2	1.5	1.5	18.5
	Other	2	1.5	1.5	20.0
	None	108	80.0	80.0	100.0
	Total	**135**	**100.0**	**100.0**	

4.2.2 Participation in sports and recreation

Figure 4.2 below shows the distribution of participation in sports and recreation activities at Elim Hospital. Of the 135 respondents, only 40(30%) indicated that they participated in workplace sports and recreation. The majority of the respondents 95(70%) indicated that

they did not participate in workplace sports and recreation.

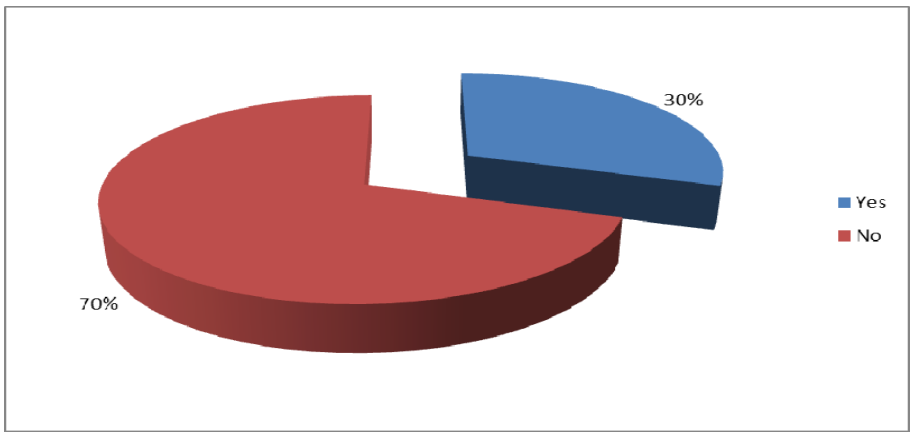

Figure 4.2 Distribution of participation in sports and recreation

4.2.2.1 Type of sport and frequency of participation

Out of the 16 sports and recreation activities covered in the Limpopo SRP, staff members of Elim Hospital only engaged in 5 as follows: 8(6%) participated in soccer, 6 (4%) participated in netball, 10(7%) participated in aerobics, 8 (6%) participated in Moraba-raba and 8(6%) participated in cards (Table 4.3).

Table 4.3 Frequency of participation and type of sport

			Frequency of participation				Total
			weekly	twice/month	Other	n/a	
Type of activity	Soccer	Count	1	0	7	0	8
		% within Frequency of participation	4.2%	0.0%	46.7%	0.0%	5.9%
	Netball	Count	0	0	6	0	6
		% within Frequency of participation	0.0%	0.0%	40.0%	0.0%	4.4%
	Aerobics	Count	8	0	2	0	10
		% within Frequency of participation	33.3%	0.0%	13.3%	0.0%	7.4%
	Moraba-raba	Count	8	0	0	0	8
		% within Frequency of participation	33.3%	0.0%	0.0%	0.0%	5.9%
	Playing cards	Count	7	1	0	0	8
		% within Frequency of participation	29.2%	100.0%	0.0%	0.0%	5.9%
	None	Count	0	0	0	95	95
		% within Frequency of participation	0.0%	0.0%	0.0%	100.0%	70.4%
Total		Count	24	1	15	95	135
		% within Frequency of participation	100.0 %	100.0%	100.0%	100.0%	100.0 %

4.2.3 Perceived susceptibility

As a way of assessing participants' perceived susceptibility to NCDs, respondents were asked to indicate their view on the extent of risk they were at of developing depression, heart attack, high blood pressure, stroke, diabetes mellitus and arthritis. The results as indicated in Table 4.4 below revealed that the majority of participants considered themselves to be at low risk or no risk of developing NCDs.

Table 4.4 Participant's perceived susceptibility to NCDs

To what extent do you feel that you are at risk of developing the following?	Scale	Frequencies(n)	Percentage (%)
Depression	Extremely high risk	3	2.2
	High risk	9	6.7
	Not sure	50	37.0
	Low risk	40	29.6
	Not at risk	33	24.4
Heart attack	Extremely high risk	1	.7
	High risk	9	6.7
	Not sure	51	37.8
	Low risk	41	30.4
	Not at risk	33	24.4
High Blood Pressure	Extremely high risk	3	2.2
	High risk	5	3.7
	Not sure	32	23.7
	Low risk	47	34.8
	Not at risk	35	25.9
	Not applicable	13	9.6
Stroke	Extremely high risk	2	1.5
	High risk	9	6.7
	Not sure	39	28.9
	Low risk	40	29.6
	Not at risk	45	33.3
Diabetes Mellitus	Extremely high risk	1	.7
	High risk	6	4.4
	Not sure	40	29.6
	Low risk	42	31.1
	Not at risk	42	31.1
	Not applicable	4	3.0
Arthritis	Extremely high risk	2	1.6
	High risk	10	7.4
	Not sure	56	41.5
	Low risk	21	15.5
	Not at risk	46	34.1

4.2.4 Perceived seriousness / severity

In order to assess perceived seriousness of NCDs, respondents were asked their opinion on whether physical inactivity contributes to NCDs or not. The majority of participants 58(43%) strongly agreed and 56(42%) agreed that physical inactivity is one of the contributory factors to the development of NCDs. Only 18(14%) indicated they were not sure (Figure 4.3).

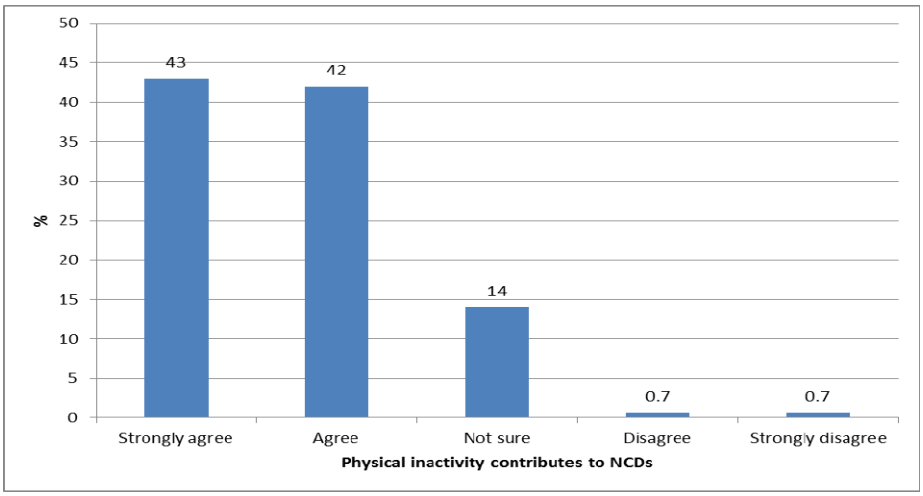

Figure 4.3: Participants' perceived seriousness / severity of NCDs

Concerning death and disability, Figure 4.4 indicates that 49(36%) of participants strongly agreed that physical inactivity contributes to a great number of death and disability worldwide while 54(40%) agreed with the statement. Only 28(21%) were not sure whether physical inactivity contributes to death and disability or not.

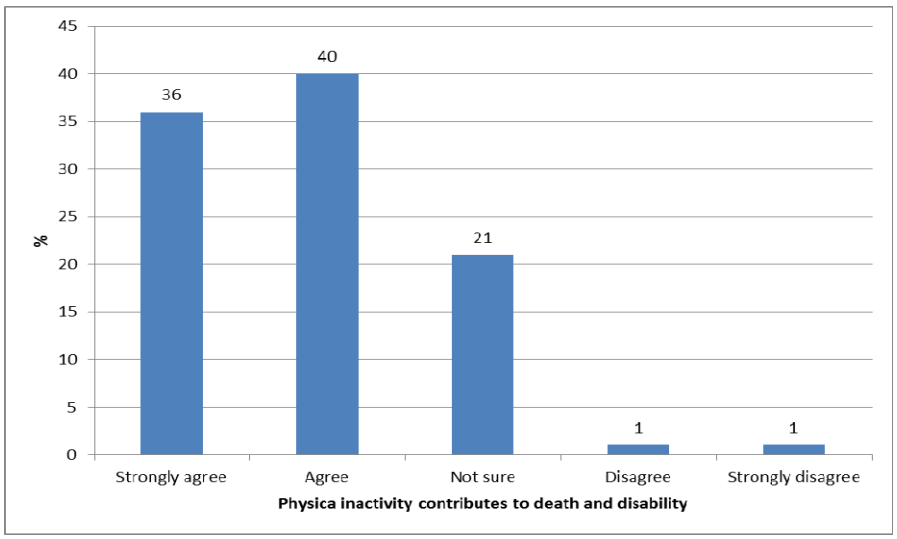

Figure 4.4 Participants' perceived seriousness / severity of NCDs

4.2.5 Perceived benefits of sports and recreation

Perceived benefits were measured by weight loss, feel good psychologically, reduce risk of NCDs, lower blood pressure, socializing and reduce general tension. As illustrated on Table 5.4 below: On “losing weight”, 68(50%) majority of participants strongly agreed and agreed 58(43%) that a major benefit of physical activity for them is losing weight. In response to “feel good psychologically”, 73(54%) strongly agreed while 55(41%) agreed that physical activity makes them feel good psychologically. Fifty-nine (44%) strongly agreed and 41(30%) agreed that it reduces the risk of developing NCDs, 34(25%) of the participants were not sure if physical activity reduces the risk of developing NCDs or not. Regarding high blood pressure 49(36%) strongly agreed-strongly agreed that physical activity lowers blood pressure; 42(31%) agreed and over a quarter of the participants 40(30%) indicated that they were not sure. Over half of the participants 71(53%) strongly agreed and 59(44%) agreed that a major benefit of physical activity for them is socializing with friends and colleagues. Sixty-two (46%) strongly agreed that it releases body tension, while 67(46%) agreed that it releases body tension.

Table 4.5 Perceived benefits

A major benefit of physical activity for me is:	Scale	Frequencies(n)	Percentage (%)
Losing weight	Strongly agree	68	50.4
	Agree	58	43.0
	Not sure	3	2.2
	Disagree	4	3.0
	Strongly disagree	2	1.5
Feel good Psychologically	Strongly agree	73	54.1
	Agree	55	40.7
	Not sure	6	4.4
	Disagree	1	.7
	Strongly disagree	0	0
Reduces risk of NCDs	Strongly agree	59	43.7
	Agree	41	30.4
	Not sure	34	25.2
	Disagree	1	.7
	Strongly disagree	0	0
Lowers Blood Pressure	Strongly agree	49	36.3
	Agree	42	31.1
	Not sure	40	29.6
	Disagree	3	2.2
	Strongly disagree	1	.7
Socializing with friends/colleagues	Strongly agree	71	52.6
	Agree	59	43.7
	Not sure	2	1.5
	Disagree	2	1.5
	Strongly disagree	1	.7
Release general tension	Strongly agree	62	45.9
	Agree	67	45.6
	Not sure	5	3.7
	Disagree	1	.7
	Strongly disagree	0	0

4.2.6 Cues to action

Participants were asked to indicate what is more likely to influence them into participation. As illustrated in Table 4.6 below, 70(52%) participants strongly agreed that the availability of sports and recreation programme at work would influence them to participate, while 59(44%) agreed with the statement. Forty-nine (36%) strongly agreed and 55(41%) agreed that a doctor's recommendation will influence them into participating, 20(15%) disagreed that a doctor's recommendation will influence them into participating.

Thirty-five (26%) strongly agreed that an advertisement on TV/radio will influence them into participating while 64(47%) agreed with the statement. Thirty-six (27%) strongly agreed that they will participate after being advised to do so by a friend and 72 (53%) agreed they will

also participate if advised to do so by a friend. Fifty-three (39%) strongly agreed and 50(37%) agreed that not fitting into clothing will influence them to participate.

Table 4.6 Cues to action

A major reason of getting me to start a sport/recreation activity is?	Scale	Frequencies (n)	Percentage (%)
Availability of programme at work	Strongly agree	70	51.9
	Agree	59	43.7
	Not sure	5	3.7
	Disagree	0	0
	Strongly disagree	1	.7
Doctor's recommendation	Strongly agree	49	36.3
	Agree	55	40.7
	Not sure	5	3.7
	Disagree	20	14.8
	Strongly disagree	6	4.4
Advert on TV/Radio	Strongly agree	35	25.9
	Agree	64	47.4
	Not sure	11	8.1
	Disagree	12	8.9
	Strongly disagree	13	9.6
Advice from friends	Strongly agree	36	26.7
	Agree	72	53.3
	Not sure	5	3.7
	Disagree	9	6.7
	Strongly disagree	13	9.6
Illness of a family member	Strongly agree	26	19.3
	Agree	53	39.3
	Not sure	31	23.0
	Disagree	11	8.1
	Strongly disagree	14	10.4
Not fitting into clothes	Strongly agree	53	39.3
	Agree	50	37.0
	Not sure	4	3.0
	Disagree	13	9.6
	Strongly disagree	15	11.1

4.2.7 Perceived barriers

Table 4.7 provides a summary of the responses to perceived barriers to sports and recreation. The most important barriers reported were: "not aware of sports and recreation policy". Twenty-six (27%) strongly agreed that this was a barrier while 34(36%) agreed. Another barrier indicated by most participants was "busy work schedule", 30(31%) strongly agreed and 22(23%) agreed it was a barrier for them.

Table 4.7 Perceived barriers to participation

The major reason why I do no participate is?	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	Total
Not aware of policy	26(27.4%	34(35.8%)	3(3.2%)	28(29.5%)	14(14.7%)	100
Lack motivation/interest	3(3.2%)	12(12.6%)	1(1.1%)	49(51.6%)	30(31.6%)	100
Busy work schedule	30(31.1%)	22(23.2)	1(1.1%)	25(26.3%)	17(17.9%)	100
Illnesses	2(2.1%)	0	1(1.1%)	55(57.9%)	37(38.9%)	100
Lack facilities	7(7,4)	6(6.3)	21(22.1)	41(43.2)	20(21.1)	100
Fear injuries	0	3(3.2%)	2(2.1%)	55(57.9%)	33(36.8%)	100
Workplace not appropriate for sports and recreation	2(2.1)	5(5.3)	9(9.5)	55(57.9)	24(37.9%)	100
Am already healthy	0	0	4(4.2%)	55(57.9%)	36(37.9%)	100
No sporting gear	2(2.1%)	3(3.2%)	2(2.1%)	60(63.2%)	28(29.5%)	100
Lack support from supervisor	0	2(2.1%)	2(2.1%)	57(60.0%)	34(35.8%)	100
Unsafe to play outside hospital	2(2.1%)	1(1.1%)	21(22.1%)	45(47.4%)	26(27.4%)	100
No incentive	1(1.1%)	3(3.2%)	11(11.6%)	54(56.8%)	26(27.4%)	100
Lack transport to activities	4(4.2%)	1(1.1%)	22(23.2%)	42(44.2%)	26(27.4%)	100

4.3 Inferential statistics: Associations between variables

In this section the overall results given above are further analysed to elicit possible correlations that will contribute to making inferences. The association between socio-demographic factors and participation, association between health-related factors and participation, association between perceived barriers and occupation category is presented and analysed. Chi-square test was also done to assess the level of association between variables.

4.3.1 Association between socio-demographic factors and participation

The association between the following socio-demographic factors and participation in sport and recreation is presented and analysed; age, gender, level of education, occupation category and work experience.

4.3.1.1 Association between gender and participation

The association between gender of participants and participation in sports and recreation is presented. Table 4.8 below shows that a higher number of males 25 (63%) indicated that they participated in sports and recreation while 15(38%) of the females indicated that they participated. Forty-five point three (45%) males and 52 (55%) were found to be not participating in workplace sports and recreation.

The table further shows that there was no significant relationship between gender of respondents and participation in workplace sports and recreation (P = 0.67 >0.05).

Table 4.8 Cross-tabulation between gender and participation in sports and recreation

Gender	Participation in sports and recreation			P value
	Yes	No	Total	
Male	25	43	68	
Count	20.1	47.9	68.0	
Expected Count				P=.067
% within Participation in sports and recreation	62.5%	45.3%	50.4%	
Female	15	52	67	
Count	19.9	47.1	67.0	
Expected Count				
% within Participation in sports and recreation	37.5%	54.7%	49.6%	
Total	40	95	135	
Count	40.0	95.0	135.0	
Expected Count				
% within Participation in sports and recreation	100.0%	100.0%	100.0%	

4.3.1.2 Association between age and participation

The highest participation rate was among the 40-49 (47.5%) age group and only 2 (5.0%) participants were within the 60 and above age range (Table 4.9). As indicated in the table below, there was a significant association between age of respondents and participation in sports and recreation (P = .019<0.05).

Table 4.9 Cross-tabulation between age and participation

Age		Participation in sports and recreation			P value
		Yes	No	Total	
30-39	Count	6	24	30	
	Expected Count	8.9	21.1	30.0	
	% within Participation in sports and recreation	15.0%	25.3%	22.2%	
40-49	Count	19	20	39	
	Expected Count	11.6	27.4	39.0	P=.019
	% within Participation in sports and recreation	47.5%	21.1%	28.9%	
50-59	Count	13	41	54	
	Expected Count	16.0	38.0	54.0	
	% within Participation in sports and recreation	32.5%	43.2%	40.0%	
60 and above	Count	2	10	12	
	Expected Count	3.6	8.4	12.0	
	% within Participation in sports and recreation	5.0%	10.5%	8.9%	
Total	Count	40	95	135	
	Expected Count	40.0	95.0	135.0	
	% within Participation in sports and recreation	100.0%	100.0%	100.0%	

4.3.1.3 Association between occupation category and participation

Table 4.10 below illustrates that the highest participants were among the administrative workers 23(58%), none 0(0%) of executive management participated in workplace sports and recreation and 17(43%) of general workers participated in sports and recreation.

The table further shows that there was a significant relationship between occupation category of respondents and participation in workplace sports and recreation (P = .021<0.05.)

Table 4.10: Cross- tabulation between occupation category and participation in sports and recreation

Occupation category		Participation in sports and recreation			P Value
		Yes	No	Total	
	Administrative				P=.021
	Count	23	32	55	
	Expected Count	16.3	38.7	55.0	
	% within Participation in sports and recreation	57.5%	33.7%	40.7%	
	Executive Management				
	Count	0	5	5	
	Expected Count	1.5	3.5	5.0	
	% within Participation in sports and recreation	0.0%	5.3%	3.7%	
	General Worker				
	Count	17	58	75	
	Expected Count	22.2	52.8	75.0	
	% within Participation in sports and recreation	42.5%	61.1%	55.6%	
Total	Count	40	95	135	
	Expected Count	40.0	95.0	135.0	
	% within Participation in sports and recreation	100.0%	100.0%	100.0%	

4.3.1.4 Association between education level and participation

Almost half 19(48%) of the participants had diploma as their educational qualifications. Table 4.11 below further reveals that the association between participants' educational level and participation in workplace sports and recreation was not significant (P = .063>0.05).

Table 4.11: Cross- tabulation between education level and participation in sports and recreation

			Participation in sports and recreation			P value
			Yes	No	Total	
Education	Grade 12	Count	9	24	33	
		Expected Count	9.8	23.2	33.0	
		% within Participation in sports and recreation	22.5%	25.3%	24.4%	P=0.63
	Diploma	Count	19	24	43	
		Expected Count	12.7	30.3	43.0	
		% within Participation in sports and recreation	47.5%	25.3%	31.9%	
	Degree	Count	3	4	7	
		Expected Count	2.1	4.9	7.0	
		% within Participation in sports and recreation	7.5%	4.2%	5.2%	
	Postgraduate	Count	1	7	8	
		Expected Count	2.4	5.6	8.0	
		% within Participation in sports and recreation	2.5%	7.4%	5.9%	
	Other	Count	8	36	44	
		Expected Count	13.0	31.0	44.0	
		% within Participation in sports and recreation	20.0%	37.9%	32.6%	
Total		Count	40	95	135	
		Expected Count	40.0	95.0	135.0	
		% within Participation in sports and recreation	100.0%	100.0%	100.0%	

4.3.1.5 Association between work experience and participation

Table 4.12 below shows that most of the participants 14(35%) had 13 years and more work experience, followed by employees within the 10-12 years of experience 13(33%).

There was no significant relationship between years' experience of respondents and participation in workplace sports and recreation (P = .771>0.05).

Table 4.12 Cross- tabulation between work experience and participation

Work experience			Participation in sports and recreation			P Value
			Yes	No	Total	
	0-3 years	Count	3	6	9	
		Expected Count	2.7	6.3	9.0	
		% within Participation in sports and recreation	7.5%	6.3%	6.7%	P=.771
	4-6 years	Count	4	11	15	
		Expected Count	4.4	10.6	15.0	
		% within Participation in sports and recreation	10.0%	11.6%	11.1%	
	7-9 years	Count	6	13	19	
		Expected Count	5.6	13.4	19.0	
		% within Participation in sports and recreation	15.0%	13.7%	14.1%	
	10-12 years	Count	13	22	35	
		Expected Count	10.4	24.6	35.0	
		% within Participation in sports and recreation	32.5%	23.2%	25.9%	
	13 years and more	Count	14	43	57	
		Expected Count	16.9	40.1	57.0	
		% within Participation in sports and recreation	35.0%	45.3%	42.2%	
Total		Count	40	95	135	
		Expected Count	40.0	95.0	135.0	
		% within Participation in sports and recreation	100.0%	100.0%	100.0%	

4.3.2 Association between health-related factors and participation in sports and recreation

As indicated on Table 4.13 below, 27(68%) who rated their overall health as good indicated they participated in sports and recreation and 57(60%) indicated they did not participate. Thirteen (33%) of the participants who rated their general health as very good indicated they participated in sports and recreation and 26(27%) indicated they did not.

There was however, no significant relationship between perception on health of respondents and participation in workplace sports and recreation (P = .135 > 0.05).

Table 4.13 Cross-tabulation between participants' perception on health and participation in sports and recreation

			Participation in sports and recreation		Total	P value
			Yes	No		
Participant's perception on Health	Poor	Count	0	1	1	
		Expected Count	.3	.7	1.0	
		% within Participation in sports and recreation	0.0%	1.1%	0.7%	
	Fair	Count	0	11	11	
		Expected Count	3.3	7.7	11.0	
		% within Participation in sports and recreation	0.0%	11.6%	8.1%	P=.135
	Good	Count	27	57	84	
		Expected Count	24.9	59.1	84.0	
		% within Participation in sports and recreation	67.5%	60.0%	62.2%	
	very good	Count	13	26	39	
		Expected Count	11.6	27.4	39.0	
		% within Participation in sports and recreation	32.5%	27.4%	28.9%	
Total		Count	40	95	135	
		Expected Count	40.0	95.0	135.0	
		% within Participation in sports and recreation	100.0%	100.0%	100.0%	

4.3.3 Association between perceived barriers and occupation category

Association between participation and awareness on policy, lack of motivation / interest, lack of support from supervisor and busy work schedule is presented and analysed.

Busy work schedule and lack of supervisors support was further compared with occupation category.

4.3.3.1 Awareness on policy and occupation category

As shown in Table 4.14 below, most general workers 29(50%) indicated they were not aware of the workplace sports and recreation policy; 10(31%) of the administrative workers were not aware of the policy and only one member of the executive management was not aware of the policy.

Table 4.14 Cross-tabulation between awareness on sports and recreation policy and occupation category

			Occupation category			
			Administrative	Executive management	General worker	Total
Not aware of sports and recreation policy	Strongly agree	Count	6	1	19	26
		% within Occupation category	18.8%	20.0%	32.8%	27.4%
	Agree	Count	4	0	10	14
		% within Occupation category	12.5%	0.0%	17.2%	14.7%
	Not sure	Count	2	0	1	3
		% within Occupation category	6.3%	0.0%	1.7%	3.2%
	Disagree	Count	9	1	18	28
		% within Occupation category	28.1%	20.0%	31.0%	29.5%
	Strongly disagreed	Count	11	3	10	24
		% within Occupation category	34.4%	60.0%	17.2%	25.3%
Total		Count	32	5	58	95
		% within Occupation category	100.0%	100.0%	100.0%	100.0%

As shown in 4.15 below there was no significant relationship between awareness of respondents on sports and recreation policy and participation in workplace sports and recreation (P = .316> 0.05).

Table 4.15 Chi-Square Tests awareness on policy and occupation category

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.317[a]	8	.316
Likelihood Ratio	9.572	8	.296
Linear-by-Linear Association	3.621	1	.057
N of Valid Cases	95		

4.3.3.2 Lack of motivation / interest and work category

From Figure 4.16, it is indicated that 23(72%) of administrative workers disagreed to strongly disagreed that they lack motivation to participate. Four (80%) of the executive management also disagreed-strongly disagreed that they lack motivation and 52(90%) of the general workers disagreed-strongly disagreed that they lack motivation to participate.

4.16 Cross tabulation between lack motivation/interest to participate and occupation category

			Occupation category			Total
			Administrative	Executive management	General worker	
Lack motivation/interest to participate	Strongly agree	Count	3	0	0	3
		% within Occupation category	9.4%	0.0%	0.0%	3.2%
	Agree	Count	6	1	5	12
		% within Occupation category	18.8%	20.0%	8.6%	12.6%
	Not sure	Count	0	0	1	1
		% within Occupation category	0.0%	0.0%	1.7%	1.1%
	Disagree	Count	16	1	32	49
		% within Occupation category	50.0%	20.0%	55.2%	51.6%
	Strongly disagree	Count	7	3	20	30
		% within Occupation category	21.9%	60.0%	34.5%	31.6%
Total		Count	32	5	58	95
		% within Occupation category	100.0%	100.0%	100.0%	100.0%

Table 4.17 below shows that there was no significant relationship between lack of motivation/interest of respondents and participation in workplace sports and recreation (P = .153>0.05).

Table 4.17 Chi-Square Tests awareness of lack motivation and occupation category

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.962	8	.153
Likelihood Ratio	13.005	8	.112
Linear-by-Linear Association	6.221	1	.013
N of Valid Cases	95		

4.3.3.3 Work schedule and occupation category

As illustrated in Table 4.18 below, 8(25%) administrative workers strongly agreed and 7(22%) agreed that a busy work schedule prevents them from participation; 1(20%) of executive management strongly agreed while 2(40%) agreed; 11(19%) of general workers strongly agreed, while 13(22%) agreed that busy work schedule as a barrier to participation.

4.18 Cross-tabulation between work schedule and occupation category

			Occupation category			
			Administrative	Executive management	General worker	Total
Busy work schedule	Strongly agree	Count	8	1	11	20
		% within Occupation category	25.0%	20.0%	19.0%	21.1%
	Agree	Count	7	2	13	22
		% within Occupation category	21.9%	40.0%	22.4%	23.2%
	Not sure	Count	0	0	1	1
		% within Occupation category	0.0%	0.0%	1.7%	1.1%
	Disagree	Count	13	1	21	35
		% within Occupation category	40.6%	20.0%	36.2%	36.8%
	Strongly disagree	Count	4	1	12	17
		% within Occupation category	12.5%	20.0%	20.7%	17.9%
Total		Count	32	5	58	95
		% within Occupation category	100.0%	100.0%	100.0%	100.0%

Table 4.19 below shows that there was no significant relationship between busy work schedule of respondents and participation in workplace sports and recreation (P = .938>0.05).

Table 4.19 Chi-Square Tests of work schedule and occupation category

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.948[a]	8	.938
Likelihood Ratio	3.300	8	.914
Linear-by-Linear Association	.564	1	.453
N of Valid Cases	95		

4.3.3.4 Lack supervisor's support and occupation category

As indicated in Table 4.20 below, only 3% of administrative workers indicated they lack support from supervisor, none (0%) of the executive members indicated lack of support from supervisor as a barrier and only 1.7% of general workers agreed that they did not get support from their supervisors.

4.20 Cross-tabulation between lack support from supervisor and occupation category

			Occupation category			Total
			Administrative	Executive management	General worker	
Lack support from supervisor	Agree	Count	1	0	1	2
		% within Occupation category	3.1%	0.0%	1.7%	2.1%
	Not sure	Count	0	0	2	2
		% within Occupation category	0.0%	0.0%	3.4%	2.1%
	Disagree	Count	17	2	38	57
		% within Occupation category	53.1%	40.0%	65.5%	60.0%
	Strongly disagree	Count	14	3	17	34
		% within Occupation category	43.8%	60.0%	29.3%	35.8%
Total		Count	32	5	58	95
		% within Occupation category	100.0%	100.0%	100.0%	100.0%

Table 4.21 below shows that there was no significant relationship between lack support from supervisor and participation in workplace sports and recreation (P = .606 >0.05).

Table 4.21 Chi-Square Tests of lack supervisor support and occupation category

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.525[a]	6	.606
Likelihood Ratio	5.224	6	.515
Linear-by-Linear Association	1.409	1	.235
N of Valid Cases	95		

4.4 Conclusion

The findings show that participation in sports and recreation is low at Elim Hospital. Participation and age of respondents, as well as participation and occupation category, were found to be significantly associated. The study further revealed that most participants knew that NCDs are serious; however, the majority perceived themselves as being less susceptible and not susceptible to NDCs. Most participants in this study were aware of the health benefits of sports and recreation. The major barriers identified by non-medical staff members were: lack of awareness about the policy and busy work schedule.

CHAPTER 5
DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter provides a discussion of major results, recommendations and conclusion of this study. The findings of this study are discussed according to the objectives of the study and in the context of the literature reviewed. The objectives of the study were the following: To assess the level / rate of participation in workplace and recreation among non-medical staff at Elim Hospital, to describe the non-medical staff members' perceived susceptibility to and perceived severity of non-communicable diseases, to describe the non-medical staff perceived benefits of participation, to identify non-medical staff members' cues to action to participation in workplace sports and recreation, to identify non-medical staff members' perceived barriers to participation, as well as to determine the socio-demographic factors associated with participation in workplace sports and recreation.

5.2 Discussion

5.2.1 Level of participation in workplace sports and recreation

The study revealed that regardless of provision having been made by the Limpopo DoH for employees to take part in sports and recreation, only 30% of non-medical staff members participated in workplace sports and recreation at Elim Hospital. This raises a concern, as it implies that employees might not be realising the importance of physical activity to their health. The study further revealed that non-medical staff members of Elim Hospital only took part in five of the sixteen sports and recreation activities catered for by the Department. This might be the reason for limited participation as those who are not participating might be interested in those activities that are not yet established at the institution. This finding of low participation in sports and recreation at Elim Hospital is consistent with most other studies done across the globe. A population-based study conducted in Canada in 2006 revealed that with 48% availability of recreational events through work, only 39% of employees actually participated in them (Cragg et al., 2006). The findings were further supported by Schneider and Becker (2005) in a study conducted in Germany on the levels of engagement in physical activity among the total working German population, in the study it was found that four out of ten employed persons (39.2%) do not engage in sports.

The finding of this current study also supports what was reported in other studies conducted in South Africa, which revealed low participation in workplace sports and recreation. Skaal and Pengpid (2011) conducted a study in a South African public hospital and found that only 25% of staff members reported that they engaged in physical activity. In a cross-sectional study conducted in sixteen various organisations in South Africa, it was found that most of these organisations were having participation levels of less than 50%, however it was also found that three organisations from this study reported participation rates of 60% and higher (Sieberhagen et al., 2011).

5.2.2 Socio-demographic factors associated with participation

With regards to socio-demographic factors, the present study revealed that 62.5% of participants were males compared to 37.5% of females. This is consistent with the findings of Hallal et al. (2012), that generally, in sports and recreation, women are more inactive than men. In their studies, (Guthold et al., 2011; Odunaiya et al., 2011; Al-Nozha et al., 2007; Cragg et al., 2006; Addley et al., 2001) also supported this by reporting that in workplace sports and recreation, men were more active than females. In this current study, low participation among females might be influenced by the cultural practices of the Venda and Tsonga people, whereby women are the ones responsible for households and caregiving duties. These days, an increasing number of females are currently employed full-time, leaving them with the double responsibility of household duties and daily workload. This might lead to more females not having extra energy for sports and recreation. Women should therefore be educated and encouraged to participate regardless of extra responsibilities they have.

In the current study, the highest participation rate (48%) was among the 40-49 age group and only 5% of participants were within the 60 and above age range, this supports the finding from a study by Al-Nozha et al. (2007) who reported that inactivity prevalence increased with increasing age category. This could be explained by the fact that younger people are more likely to participate in sports and recreation than the older ones even in the general population. It is therefore necessary to encourage these elderly employees into participation as they are more at risk of developing diseases as a result of ageing.
From the current study, there was a significant association between age of participants and participation in workplace sports and recreation ($P = .019 < 0.05$).

Regarding participation and occupational category, the highest participants (58%) were among the administrative workers, none (0%) of the executive management members participated and 17(42.5%) of general workers participated in sports and recreation. This could be associated with busy work schedule which most participants indicated as a barrier.
In this study, the relationship between occupation category of respondents and participation in workplace sports and recreation was significant (P = .021 < 0.05).

It has been observed that people with higher education levels are more likely to engage in organised physical activity than their counterparts with lower education (Odunaiya et al., 2011). This is in accordance with findings in this current study where 48% of participants had diploma as their educational qualifications. This is a clear indication that employees with some form of higher education were more interested in participating than those who did not, this might be related to the fact that those who are more educated understand the implications of participation better than those whose education level is low.
In the current study 60% of employees who rated their overall health as good indicated they did not participate in workplace sports and recreation. This is worrying as it is a clear indication that people might be lacking knowledge on the importance of healthy life-style to their health. This finding supports what was reported by Oslon and Chaney (2009), that some people do not feel susceptible to a disease or illness (perceived susceptibility). This is further revealed by 27.4% respondents who, in this current study rated their overall health as very good and yet they did not participate in workplace sports and recreation. These findings contradict those of Rongen et al. (2014), who reported that employees whose self-perceived health was less than good were more likely to have a positive intension towards participation in workplace health promotion programme. However such employees were not more likely to actually participate during follow up.

In the current study there was no significant relationship between gender and participation, educational level and participation, perception on health of respondents and participation in workplace sports and recreation.

5.2.3 Perceived susceptibility to and perceived severity of non-communicable diseases

With regards to participants' perceived susceptibility, this study revealed that majority of the respondents considered themselves as not to susceptible or less susceptible to NCDs. This might be a contributory factor to low participation in sports and recreation at Elim Hospital.

This participants' perception might be due to lack of knowledge on possible causes of NCDs and predisposing factors to NCDs. This supports what was reported by Oslon and Chaney (2009) that there are various reasons why people do not participate in worksite health promotion programmes, one of which is that people do not feel susceptible to a disease or illness. Oslon and Chaney (2009) further indicated that employees need to be able to identify what their health risks are, so that they can make an informed decision about participating in workplace health promotion.

On perceived severity/ seriousness 85% agreed that that NCDs are serious, which is very good as this perception might influence them to take action if given information on the relationship between NCDs and physical activity. This finding supports what was reported by the National Department Health (2013) and Klobe-Alexander et al. (2007), that most people know that NCDs are serious. The majority of participants (76%), in the current study further agreed that physical inactivity can lead to death and disability. Regardless of staff members knowing about the consequences of physical inactivity, this has not influenced them into participating, this is worrying as it shows ignorance. These support findings from a study conducted on the prevention and control of non-communicable diseases among adults in which 90% of respondents were found to believe that developing non-communicable disease has serious consequences (Beaglehole et al., 2003). Regardless of the understanding of non-medical staff members of Elim Hospital that NCDs are serious, and contribute to disability and death, they are unable to link it to the fact that physical activity can help alleviate the development of these conditions.

5.2.4 Perceived benefits of participation in workplace sports and recreation

When asked about major benefits of participating in sports and recreation, most participants in the current study showed a good understanding of the impact of sports and recreation to health, as the majority agreed to the statements assessing their perceived benefits. This is impressive as it might make it easier for the policy implementers to be able to recruit as many employees as possible into participation because they are already aware of the health benefits. The finding of good knowledge on the benefits of sports and recreation was also reported by Rongen et al. (2014), who, in their study found that employees who were knowledgeable about health benefits of sports and recreation showed a positive intension towards participation in workplace health promotion programme.

5.2.5 Cues to action to participation in workplace sports and recreation

This current study also revealed that factors such as availability of sport and recreation programmes at work, recommendations by a doctor, illness of a family member, advice from friends, advertisement on television / radio and not fitting comfortably into clothing are more likely to influence the decisions of employees in participating in workplace sports and recreation or not. As a way of promoting healthy lifestyles, the Limpopo DoH has made provisions for employees by bringing sports and recreation to the workplace. The implementation of the policy is left for the institutions; there might be extra resources that are needed to ensure smooth implementation of the policy which institutions might not be having.

This is supported by findings in other studies that factors influencing participation include managerial support, amount of time and resources required of the employee (Hassard et al., 2012; Oslon & Charney, 2009).

5.2.6 Perceived barriers to participation in workplace sports and recreation

With regards to barriers to participation, two major barriers were identified in this current study. Most respondents indicated that they do not participate because they are not aware of the sports and recreation policy. This was also reported in a longitudinal study on barriers to participation in a worksite wellness programme by Person et al. (2010) that employees revealed they were not adequately informed and made aware of the programme. Another study conducted among low income groups found that people did not attend because they felt uniformed about what was available in the workplace (Withall et al., 2011). This is a clear indication that policies are being approved for implementation without a plan in place for cascading the information to all the staff members. In this current study, out of the three staff categories who were part of the study, general workers were the ones who mostly indicated that they were not aware of the policy , this is a huge concern as it might be implying that management is not ensuring that information reaches all staff members regardless of their category. From this current study, there was however no significant relationship between awareness of respondents on the policy and participation in workplace sports and recreation ($P = 0.316 > 0.05$).

Another important barrier participants reported in this study was a busy work schedule which employees indicated makes it impossible for them to participate. Several other studies also reported a busy work schedule as a barrier to participation in workplace sports and

recreation (Bennie et al., 2010; Person et al., 2010; Oslon & Chaney, 2009; Amusa et al. 2008; WHO, 2003). Even though a busy work schedule was reported by all the three staff categories who formed part of this study, executive management was mostly affected, with 20% of executive management strongly agreeing and 40% agreeing that they do not participate due to busy work schedule. This supports the findings from a longitudinal study conducted among university employees in East Carolina, which revealed that only 10.4% of managers and leadership team members attended the programme; busy work schedule was cited as a reason of poor participation (Person et al., 2010). A cross-sectional study carried out on a group of executive employees from selected African countries also found that majority of them do not participate (Mohlala et al., 2012). This might be due to the extra responsibility that executive managers have in a hospital setting where they have a responsibility of overseeing that all things are running smoothly and hence they end up not prioritising sports and recreation.

From the Elim Hospital 2016 staff structure, it is clear that there are many vacancies at Elim Hospital across the various staff categories. This is an indication that the few people that are currently occupying various positions are overworked and have to go an extra mile to ensure that all the work is done, leaving them with no time for sports and recreation due to work load. However no significant relationship was found between busy work schedule of respondents and participation in workplace sports and recreation (P = .938>0.05).

5.3 Recommendations

Based on the findings, the following are recommended:

5.3.1 For managers

- There is a great need for creation of awareness among employees on various departmental policies. This should be done on a continuous basis, with every new policy introduced and also each time new staff members are hired. Awareness should be made across all the staff categories regardless of their level / positions
- General educational programme to all staff members geared towards increasing awareness on importance of engaging in regular sports and recreation might help in increasing participation level.
- Motivate for filling of vacancies, so that employees can relieve one another in attending sporting events because busy work schedule was indicated to be one of

the barriers. When vacant posts are filled, employees will be able to take turns to attend sports and recreation activities.

5.3.2 For policy makers

- Routinely monitor implementation of the policy so as to identify challenges experienced at facility level and therefore give the necessary support required at facility level.

5.3.3 Further research

- Out of the 16 activities covered in the departmental sports and recreation policy, non-medical staff members at Elim Hospital were found to be only participating in five (5), it is therefore necessary to investigate further as to why people are not engaging in other activities.

5.4 Limitations of the study

The population of the study only included non-medical staff members who were permanently employed by the Limpopo Department of Health at Elim Hospital during the time of the study. The findings from the study can therefore only be generalised to institutions with similar characteristics to Elim Hospital.

All data were self-reported, thus vulnerable to exaggeration. Recall bias may represent sources of error. To minimise this bias, the questions in the research tool were framed in a way that aid accurate recall.

5.5 Plan for dissemination

Copies of the mini-dissertation were submitted to the University of Venda Library, the Limpopo Department of Health Research Unit, as well as to the CEO of Elim Hospital. Results of the study will also be published in relevant accredited journals and will be presented at seminars workshops and conferences (national and international).

5.6 Conclusion

This study highlighted the perceived factors that are associated with participation in workplace sports and recreation among non-medical staff members at Elim Hospital. These staff members were found to have low levels of participation. In addition staff members perceived themselves to be less susceptible and not susceptible to NCDs. The main barriers highlighted by participants were lack of awareness about the policy and busy work schedule.

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APPENDIX A

Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital

QUESTIONNAIRE

Instructions

NB! Please answer all the applicable questions .The researcher will assist you with the completion of the questionnaire.

SECTION A: SOCIO-DEMOGRAPHIC DATA

1. Gender

   Male ☐ Female ☐

2. Age

Under 30	30-39	40-49	50-59	60 and above

3. Marital status

Single (never married)	Married	Divorced	Separated	Widowed

4. What is your occupation / job title **NB**! **For executive management members** only write “Executive management”

   _____

5. How long have you been working at this hospital?

0-3 years	4 – 6 years	7-9 years	10-12 years	13 years or more

6. What is your level of education?

Grade 12	Diploma	Degree	Postgraduate	Other

7. How would you rate your overall health at the present time

Poor	Fair	Good	Very Good

8. Are you currently taking any chronic medication?

Yes ☐ No ☐

If yes

9. Which of the below mentioned condition do you suffer from?

Diabetes	Hypertension	Heart diseases	Cancer	Combination	Other

SECTION B: PARTICIPATION IN WORKPLACE SPORTS AND RECREATION

1. Do you participate (while at work) in any of the workplace sports and recreation activities mentioned in the Limpopo Department of Health Sports and Recreation Policy?

Yes ☐ No ☐

NB! If no skip to Section C, if yes continue with the rest of the questions

2. Which of the following sports /recreation activity covered in the Limpopo Department of Health sports and recreation policy do you partake in during the sports days?

Soccer		Aerobics	
Netball		Traditional dance	
Volleyball		Ballroom dance	
Tennis		Fun walk/Run	
Choral music		Moraba-raba	
Scrabble		Soft-ball	
Diketo		Playing cards	
Darts		Chess	

3. How often do you participate?

Weekly	Once a month	Twice a month	Other

SECTION C: FACILITATORS TO PARTICIPATION IN WORKPLACE SPORTS AND RECREATION

Perceived Susceptibility

13. To what extent do you feel that you are personally at risk to develop or experience each of the following?

13.1 Depression

Extremely high risk ☐
High risk ☐
Not sure ☐
Low risk ☐
Not at risk ☐
Not applicable ☐

13.2 Heart attack

Extremely high risk ☐
High risk ☐
Not sure ☐
Low risk ☐
Not at risk ☐
Not applicable ☐

13.3 High blood pressure

Extremely high risk ☐
High risk ☐
Not sure ☐
Low risk ☐
Not at risk ☐
Not applicable ☐

13.4 Stroke

Extremely high risk ☐
High risk ☐

Not sure ☐

Low risk ☐

Not at risk ☐

Not applicable ☐

13.5 Diabetes

Extremely high risk ☐

High risk ☐

Not sure ☐

Low risk ☐

Not at risk ☐

Not applicable ☐

13.6 Arthritis

Extremely high risk ☐

High risk ☐

Not sure ☐

Low risk ☐

Not at risk ☐

Not applicable ☐

Perceived Seriousness or severity

14. Indicate your opinion about the following statements:

14.1 Physical inactivity is one of the contributory factors to the development of heart diseases, stroke, diabetes etc.

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

14.2 Physical inactivity contributes to a great number of death and disability worldwide

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

Perceived Benefits

15. A major benefit of physical activity for me is:

15.1 Losing weight

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

15.2 Feeling better psychologically

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

15.3 Reduce risk of heart attack, Diabetes, Cancer, stroke and lung diseases

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

15.4 Lowers Blood pressure

Strongly Agree ☐

Agree ☐

Not sure

Disagree ☐

Strongly Disagree ☐

15.5 Good for socialising

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

15.6 Release tension

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

Cues to action

16. A major reason for getting me to start an exercise / recreation programme is:

16.1 Availability of sports and recreation programme at work

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

16.2 Doctors recommendation

Strongly Agree ☐

Agree ☐

Not sure ☐

Strongly Disagree ☐

16.3 Advertisement on television

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

16.4 Advice from friends

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

16.5 Illness of family member

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

16.6 Not fitting comfortably into clothing

Strongly Agree ☐

Agree ☐

Not sure ☐

Disagree ☐

Strongly Disagree ☐

SECTION D: PERCIEVED BARRIERS TO PARTICIPATION IN WORKPLACE SPORTS AND RECREATION

NB! Please do not answer this question if you are already participating in workplace sports and recreation

17. The major reason why I do not participate is? Indicate your opinion on each question by putting a cross (X)

	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
Not aware of Sports and Recreation Policy					
Lack motivation/interest to participate					
Busy work schedule and I have no time for sports and recreation					
Illnesses					
Lack of facilities					
Fear of injuries					
Workplace not appropriate place for sports and recreation					
No need as I am already healthy / fit					
No sporting gear					
Lack support from my supervisor					
It is unsafe to play in sporting grounds outside the hospital					
No incentive from employer					
Lack transport to sporting activities					

Thank you very much for your participation

APPENDIX B

Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital-Vhembe District

Information letter for participants

Dear Colleagues

My Name is Thendo Mutangwa. I am a second year Masters of Public Health student at the University of Venda. As part of my curriculum I am required to conduct a research project. The title of my study is **"Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital -Vhembe District"**

The main aim of the study is:

To determine the perceived factors that influence participation of non-medical staff members in workplace sports and recreation at Elim Hospital.

Participation is voluntary and refusal to participate will involve no penalties.
The researcher / her assistant will assist you with the completion of questionnaire at the time that is most convenient to you.

A copy of the results of this study will be made available to you on request.
If you have questions regarding the questionnaire, you can contact me on 082 552 1221 or thendo.mutangwa@yahoo.com / Thendo.Mutangwa@dhsd.limpopo.gov.za

Thank you

_____

Mutangwa Thendo

APPENDIX C

Consent Form

Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital-Vhembe District

I have read the information on the aim of the proposed study and was provided the opportunity to ask questions about this study. The aim of the study is sufficiently clear to me and I have not been pressurized to participate in any way.

I understand that participation in this study is completely voluntary and that I may withdraw from it at any time without penalties. I am fully aware that the results of this study will be used for scientific purposes and may be published. I hereby give consent to participate in this study.

_____ _____

Name Signature

_____ _____

Place Date

_____ _____

Witness: Name Date

APPENDIX D

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Mrs T Mutangwa

Student No:
14008945

PROJECT TITLE: **Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital-Vhembe District.**

PROJECT NO: SHS/16/PH/22/1909

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof DU Ramathuba	University of Venda	Supervisor
Dr JT Mabunda	University of Venda	Co-Supervisor
Mrs T Mutangwa	University of Venda	Investigator - Student

ISSUED BY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: September 2016
Decision by Ethical Clearance Committee Granted
Signature of Chairperson of the Committee: .....
Name of the Chairperson of the Committee: Prof. G.E. Ekosse

UNIVERSITY OF VENDA
DIRECTOR
RESEARCH AND INNOVATION
2016 -09- 2 1
Private Bag X5050
Thohoyandou 0950

University of Venda
PRIVATE BAG X5050, THOHOYANDOU, 0950, LIMPOPO PROVINCE, SOUTH AFRICA
TELEPHONE (015) 962 8504/8313 FAX (015) 962 9060
"A quality driven financially sustainable, rural-based Comprehensive University"

APPENDIX E

P.O Box 59

Thornhill Plaza

Polokwane

0882

2016/09/23

Limpopo Department of Health

Research Unit

Polokwane

0700

Re: Request for approval to conduct a research at Elim Hospital: Vhembe District

Dear Sir/ Madam

I am a second year Masters of Public Health student at the University of Venda and would like to request permission to conduct my research at Elim Hospital in the Vhembe District.

My research topic is: **"Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital -Vhembe District"**

My target group are all non-medical staff members employed at Elim Hospital during the time of my study.

The objectives of my study are:

- To assess the level / rate of participation in workplace sports and recreation among non-medical staff members of Elim Hospital.
- To describe the non-medical staff member's perceived susceptibility to and perceived severity of non-communicable diseases.
- To describe the non-medical staff perceived benefits of participation in workplace sports and recreation.
- To identify non- medical staff member's cues to action to participation in workplace sports and recreation.
- To identify non-medical staff member's perceived barriers to participation in workplace sports and recreation at Elim Hospital.
- To investigate the socio-demographic factors associated with participation in workplace sports and recreation.

Please find attached ethical clearance certificate from the Higher Degree Committee of the University of Venda.

I will be very grateful if I am permitted to conduct this study.

Thank You

_____

Mutangwa Thendo (Cell :082 552 1221)

APPENDIX F

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

Enquiries: Latif Shamila (015 293 6650) Ref:4/2/2

Mutangwa T
University of Venda
Private Bag X505
Thohoyandou
0950

Greetings,

RE: **Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital-Vhembe District**

The above matter refers.

1. Permission to conduct the above mentioned study is hereby granted.
2. Kindly be informed that:-
   - Research must be loaded on the NHRD site (http://nhrd.hst.org.za) by the researcher.
   - Further arrangement should be made with the targeted institutions, after consultation with the District Executive Manager.
   - In the course of your study there should be no action that disrupts the services.
   - After completion of the study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
   - The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
   - The above approval is valid for a 3 year period.
   - If the proposal has been amended, a new approval should be sought from the Department of Health.
   - Kindly note, that the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated.

Head of Department

06/10/2016
Date

18 College Street, Polokwane, 0700, Private Bag x9302, POLOKWANE, 0700
Tel: (015) 293 6000, Fax: (015) 293 6211/20 Website: http/www.limpopo.gov.za

APPENDIX G

P.O Box 59

Thornhill Plaza

Polokwane

0882

2016/10/19

The District Executive Manager

Vhembe District - Department of Health

Private Bag X5009

Thohoyandou

0950

Re: Request for approval to conduct a research at Elim Hospital

Dear Sir/ Madam

I am a second year Masters of Public Health student at the University of Venda and would like to request permission to conduct my research at Elim Hospital.

My research topic is: **"Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital -Vhembe District"**

My target group are all non-medical staff members employed at Elim Hospital during the time of my study.

The aim of the study is to determine the perceived factors influencing participation of non-medical staff members in workplace sports and recreation at Elim Hospital.

The objectives of my study are:

- To assess the level / rate of participation in workplace sports and recreation among non-medical staff members of Elim Hospital.
- To describe the non-medical staff member's perceived susceptibility to and perceived severity of non-communicable diseases.
- To describe the non-medical staff perceived benefits of participation in workplace sports and recreation.
- To identify non- medical staff member's cues to action to participation in workplace sports and recreation.

- To identify non-medical staff member's perceived barriers to participation in workplace sports and recreation at Elim Hospital.
- To investigate the socio-demographic factors associated with participation in workplace sports and recreation.

Please find attached: a copy of the approval letter from the Head of Department (HOD) Limpopo Department of Health as well as ethical clearance certificate from the Higher Degree Committee of the University of Venda.

I will be very grateful if I am permitted to conduct this study.

Thank You

_____

Mutangwa Thendo (Cell: 082 552 1221)

Thendo.mutangwa@yahoo.com /

Thendo.Mutangwa@dhsd.limpopo.gov.za

APPENDIX H

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OFHEALTH
VHEMBE DISTRICT

Ref: S5/6
Enq: Muvari MME
Date: 03 October 2016

Dear Sir/Madam

PERMISSION TO CONDUCT A STUDY: MUTANGWA T

1. The above matter bears reference
2. Your letter received on the 27/10/2016 requesting for permission to conduct a study is hereby acknowledged
3. The District has no objection to your request as the Province has already granted permission through the HOD.
4. Permission is therefore granted for the study to be conducted within Vhembe District.
5. You are however advised to make the necessary arrangements with the facility concerned.
6. Wishing you success in your studies

.....
DISTRICT CHIEF DIRECTOR

.....
DATE

Private Bag X5009 THOHOYANDOU 0950
OLD parliamentary Building Tel (015) 962 1000 (Health) (015) 962 4958 (Social Dev) Fax (015) 962 2274/4623
Old Parliamentary Building Tel: (015) 962 1848, (015) 962 1852, (015) 962 1754, (015) 962 1001/2/3/4/5/6 Fax (015) 962 2373, (015) 962 227

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APPENDIX I

P.O Box 59

Thornhill Plaza

Polokwane

0882

2016/11/07

The Chief Executive Officer

Elim Hospital

Private Bag X 312

Elim

0960

Re: Request for approval to conduct a research at your Hospital

Dear Sir/ Madam

I am a second year Masters of Public Health student at the University of Venda and would like to request permission to conduct my research at Elim Hospital.

My research topic is: **"Perceived factors influencing participation in workplace sports and recreation among non-medical staff members at Elim Hospital-Vhembe District"**

My target group are all non-medical staff members employed at Elim Hospital during the time of my study.

The aim of the study is to determine the perceived factors influencing participation of non-medical staff members in workplace sports and recreation at Elim Hospital.

The objectives of my study are:

- To assess the level / rate of participation in workplace sports and recreation among non-medical staff members of Elim Hospital.
- To describe the non-medical staff member's perceived susceptibility to and perceived severity of non-communicable diseases.
- To describe the non-medical staff perceived benefits of participation in workplace sports and recreation.
- To identify non-medical staff member's cues to action to participation in workplace sports and recreation.

- To identify non-medical staff member's perceived barriers to participation in workplace sports and recreation at Elim Hospital.
- To investigate the socio-demographic factors associated with participation in workplace sports and recreation.

Please find attached: a copy of the approval letter from the Head of Department (HOD) Limpopo Department of Health, approval letter from the District Executive Manager Vhembe District Department of Health, as well as the ethical clearance certificate from the Higher Degree Committee of the University of Venda.

I will be very grateful if I am permitted to conduct this study.

Thank You

_____

Mutangwa Thendo (Cell: 082 552 1221)

Thendo.mutangwa@yahoo.com /

Thendo.Mutangwa@dhsd.limpopo.gov.za

APPENDIX J

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
ELIM HOSPITAL

REF : S5/3/2.
ENQ : Baloyi I.G
DATE : 16/11/2016.

To : The Chief Executive Officer.
From : HR Organizational Strategy and Planning.

SUBJECT: PERMISSION TO CONDUCT RESEARCH PROJECT: "PERCEIVED FACTORS INFLUENCING PARTICIPATION IN WORKPLACE SPORTS AND RECREATION AMONG NON-MEDICAL STAFF MEMBERS AT ELIM HOSPITAL-VHEMBE DISTRICT: MASTERS DEGREE: UNIVESITY OF VENDA: MUTANGWA T.

1. Purpose

1.1 This matter is submitted for your approval for the applicant to conduct the above mentioned project.

2. Background

2.1.The applicant is a student at the University of Venda.

2.2.She applied and has been granted permission by the Head of Department to conduct the project .

2.3.Approval has been granted by the Head of the Department, the institution is aware and also consents to the study.

3. Financial Implication.

3. 1.There is no financial implication during the period of study.

P/Bag X312, Elim Hospital, 0960
Tel (015)556 3201/2/3/4/5, Fax (015)556 3160, Email: elimhospital@dhw.norprov.gov.za
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1

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
ELIM HOSPITAL

Ref: S5/3/2
Enq: Baloyi I.G
Date: 2016.11.18

To: Ms Mutangwa T

From: Elim Hospital

Dear Madam.

SUBJECT: SUBJECT: PERMISSION TO CONDUCT RESEARCH PROJECT: "PERCEIVED FACTORS INFLUENCING PARTICIPATION IN WORKPLACE SPORTS AND RECREATION AMONG NON-MEDICAL STAFF MEMBERS AT ELIM HOSPITAL-VHEMBE DISTRICT: MASTERS DEGREE: UNIVESITY OF VENDA: MUTANGWA T.

1. The above stated matter bears reference.

2. Kindly be informed that your request to conduct research in our institution (Elim Hospital) has been approved by the Chief Executive Officer.

3. Kindly be informed that there will be no remuneration during the period of study

.....
CHIEF EXECUTIVE OFFICER

18/11/2016
DATE

P/Bag X312, Elim Hospital, 0960
Tel (015)556 3201/2/3/4/5, Fax (015)556 3160,
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LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
ELIM HOSPITAL

Ref: S5/3/2
Enq: Baloyi I.G
Date: 2016.11.18

To: The CEO
Corporate Services
Risk Management
Financial Management
Quality Assurance
Infrastructure Management and Maintenance
Information Management and Technology
Records Management

From: HR Organizational Strategy and Planning.

SUBJECT: PERMISSION TO CONDUCT RESEARCH: "PERCEIVED FACTORS INFLUENCING PARTICIPATION IN WORKPLACE SPORTS AND RECREATION AMONG NON-MEDICAL STAFF MEMBERS AT ELIM HOSPITAL-VHEMBE DISTRICT.

1. The above matter bears reference.

2. Kindly be informed that Ms Mutangwa T has been granted permission by the HOD Health and the CEO of Elim Hospital to conduct research on the above mentioned project.

3. She will resume the project research in our institution as soon as possible. See attached approvals.

.....
Deputy Director: Corporate Services

2016.11.21
.....
Date

P/Bag X312, Elim Hospital, 0960
Tel (015)556 3201/2/3/4/5, Fax (015)556 3160.
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APPENDIX K

SCHOOL OF HUMAN AND SOCIAL SCIENCES

19 February 2017

School of Health Sciences
University of Venda
Private Bag X5050
Thohoyandou
0950

Dear sir/madam

This letter serves to certify that I have proof-read Ms T. Mutangwa's mini-dissertation, titled, "Perceived Factors Influencing Participation in Workplace Sports and Recreation Among Non-medical Staff Members at Elim Hospital, Vhembe District".

The proof-reading entailed editing some parts of it, where I felt it would make the document more understandable; for example, to avoid wordiness, redundancy; sub-diving a long sentence into two or more shorter ones, etc. However, I have not tempered with the content of the mini-dissertation, except where I found that this constituted repetition or made the content confusing.

The mini-dissertation is now ready for submission and/or examination.

Thank you for your time.

Sincerely
.....
V.T. Bvuma
Mobile: 083 423 9227

University of Venda