

# Physico-Biochemical Activities Improve Chronic Diseases Conditions of Patients, at Oshakati Hospital, Namibia

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**Abstract:** Physico-biochemical activities improve patient's quality of life and satisfaction with chronic disease prevention and management. The intention of the study was to investigate how physical activities prevent and improve chronic diseases on people living with chronic diseases. Further aim was to collect data that give evidence that physical activities are important for decreasing the rate of chronic diseases among people. The objectives of the study were to assess the impact of exercises on the prognosis of chronic health conditions, explore the knowledge patients on how physical activities benefits them. A qualitative descriptive study design was used to obtain the data. The population of the study was patients who are suffering from chronic life style diseases such as hypertension, diabetes mellitus, cardiovascular diseases, asthma. An individual unstructured face to face interview of the participant (patients suffering from chronic diseases attending at IHO outpatient department) was done. Data analysis was done following the steps of qualitative data analysis. The Findings of the study shown that patients with chronic diseases who are physically active and do exercises have a better prognosis than those who are physically inactive. Most of the people become physically inactive as soon as they are diagnosed with chronic diseases, because most of them believe that being at rest most of the times prevents complications. Chronic lifestyle conditions at Intermediate Hospital Oshakati are common in patients who are less physically active. The researcher recommends that health care workers, should provide intensive health healthy lifestyle education to patients.

**Keywords:** Physico-Biochemical, Prevention, Chronic Diseases

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## 1. Introduction

Lifestyle factors such as physical inactivity are heavily correlated with the development of many chronic conditions and diseases. Physical and Biochemical based activities are now considered as principal interventions primary and secondary prevention of chronic diseases such as cardiovascular diseases, type 2 diabetes, obesity and cancer are drastically improved when physical activities are part of medical management plan [1]. Kruk (2007) stated that "despite the benefits of regular physical activities, the percentage of physically inactive adults in the world is high."

This study will highlight the background information on

how physical activities prevent and improve lifestyle diseases on people living with chronic diseases at Intermediate Hospital Oshakati. Exercises and chronic diseases share a significant relationship. This section will cover the problem statement that people who does not get involved in physical activities are more prone to development of chronic diseases and those that are on treatment does not improve in contrast to those that do physical activities.

## 2. Background of the Study

According the World Health Organization (WHO), chronic diseases are the leading cause of death worldwide. Ischemic

heart disease alone was responsible for about 9.43 million deaths in 2016. “About 5.3 million of the 57 the 57 million deaths worldwide in 2008 could be attributed to physical inactivity largely due to chronic diseases” [2]. The Intermediate Hospital Oshakati (IHO) is situated in Oshakati district, Oshana region. Patients with chronic diseases are usually treated at Medical outpatient department at IHO. Chronic diseases are the common causes of death at IHO. Although patients with chronic diseases are always on treatment and monitored regularly, their prognosis is still very poor. This is due to unhealthy life styles such as lack of physical exercises. It has been observed that most of the times, patients who engages in physical exercises tends to have a longer life span compared to those who are not involved in any physical activities.

### 2.1. Problem Statement

Chronic lifestyle conditions at Intermediate Hospital Oshakati (IHO) are more common in patients who are less physically active. It has been observed that they have a very slow prognosis, despite being on treatment and also being monitored. Therefore, this study will be carried out to investigate how a physical exercise contributes to the prevention of chronic diseases and also how it contributes to the better management of chronic lifestyle conditions.

### 2.2. The Purpose of the Study

The purpose of this study is to collect data that can give evidence that physical activity is important for decreasing the rate of chronic diseases among people, especially those at risk (cardiovascular and heart, diabetes, cancer, obesity, osteoporosis, fall related injuries, depression and emotional stress. It will also help to explore the benefits of physical activities to patients with chronic diseases, and focus on identifying the safe types of exercises that patients should practice for better outcomes.

### 2.3. Objectives of the Study

The objectives of the study are to:

- 1) Assess the impact of exercises on the prognosis chronic health conditions.
- 2) Explore the knowledge of chronic diseases patients on how physical activities are beneficial to them.
- 3) Advance the knowledge and understanding of patients on the importance of being physically active.

## 3. Research Method

In this research, the researcher used a narrative research method where by in-depth interviews were conducted, the researcher reviewed documents and then looked for and created themes. The population of this study consist of 10 patients suffering from chronic diseases, who use to be treated at Oshakati state Hospital. 5 patients will be those that use to do physical exercises and 5 those that are don't do physical exercises. The available population include all

patients who are suffering from chronic diseases and use to be treated at Intermediate Hospital Oshakati (IHO).

The researchers used a typically smaller sample size. A few numbers of patients with chronic conditions and people at risk of developing chronic conditions with the requirements are researched on. In a qualitative study, the number of participants is adequate when saturation of information is reached [3, 4, 5]. 10 patients from patients with chronic conditions Oshakati state Hospital formed the sample using stratified sampling method which is suitable for different groups. The choice of sampling technique depends on the type of research and type of conclusion that he or she would like to draw.

## 4. Data Collection

The researchers interviewed the participants in order to acquire the data. Interviewing is a predominant mode of data or information collection in qualitative research. [6, 7, 8] define qualitative interviews as “Attempts to understand the world from the participative point of view, to unfold the meaning of people's experiences and to uncover their lived world prior to scientific explanations. The researcher used the following type of interview;

*Face to face interviews*-By using face to face interview the researcher was able to establish rapport with the participants and gained their cooperation. The benefits of using face to face interview is that it allows more in depth data collection and comprehensive understanding. The interviewer gets a chance to probe for further clarifications. Body language and facial expressions are also useful during a face to face interview [9, 10].

*Field notes*-During the face to face interview the researcher used tape recording, with the participant's consent. The researcher took the field notes while listening the audio recorded during the interview.

In order to undertake the research and address the objectives of the study, both primary and secondary data were utilized [11, 12]. Primary sources data were used for firsthand information to achieve the objectives of the study. The researcher obtained primary data from the participants through a face-to-face interview. The researcher collected secondary data through the inspection of all available documents, reports, articles, previous research papers, books, websites and other related documents to support the reliability of information obtained from participants.

## 5. Results

The results of this study are here presented as per the themes extrapolated from the study, and with in-depth presentation per the analysis [13].

*Theme 1 Physical activities lower the risks of developing chronic diseases.*

Health experts claim that, exercise is one of the top things people do to lower risks of developing one of the following health problems; high blood pressure, high cholesterol level,

persisting pain and inflammation [14].

The participant's inputs on this theme was on their experiences on how physical activities improved their chronic diseases conditions. Participants had different experiences. Those that does physical activities expressed how their conditions improved and how their symptoms became better. Some compared their conditions of when they were physically inactive to when they physically active. Majority of the Participants supported the fact that "Physical activities improves and prevent chronic diseases."

*Patients with chronic diseases expressed that regular exercises can help manage symptoms and improve one's health*

Patients with chronic diseases verbalized that, being physically active makes them feel better, and the symptoms are managed more effectively. This is supported by the quotations from the participants:

*"When I was small, my parents use to be... to be worried, as for me to get sick and they didn't usually let me play with my friends or to do physical activities. But, changes started occurring when they started.... They let me walk to and from school, and whenever I am at school I play with my friend's soccer at break times and after school and.... Yah, changes started occurring...now I am better compared to how I was when I was small." (participant 1)*

*"Yes my health condition improved, because I didn't use to sleep well. Whenever I am lying down, I use to turn with difficulty, but since I started exercising, it started being easy for me. Now I sleep better, my weight has reduced, my blood pressure is no longer high and my blood sugar level also dropped." (participant 2)*

Getting regular, moderate, intensity exercises is critically important for people who want to manage chronic diseases because, exercises effectively reduces weight overall body fat and intra-abdominal body fat, a hidden risk factor for many chronic diseases [14, 15, 16, 17]. Recent research has shown that, engaging in moderate physical activities is very important for the primary prevention of chronic diseases, decreasing all causes of mortality.

*Exercises help to reverse obesity and all the effects that comes with it.*

Obesity is a serious condition that affects more than one third of adults. Obesity contributes to preventable death each year in the United States and it's on the rise [18]. In this study, one of the participants verbalized that fat people are the one always at the hospitals with health problems in contrast to people with normal and healthy body weight. Participant quoted;

*"Most of the people who are fat are always the ones going to hospitals with problems and, compared to the ones that are fit and who looks stronger and healthier and they also.... The fat people are always also having problems with their bodies and the diseases." (participant 1)*

*Exercise helps people with diabetes manage blood sugar levels.*

One of the participants said that, since she has started doing exercises, when she goes for checkups at the hospital,

her blood sugar levels start to drop, which has shown a good sign. Riner (2013), supported this by saying: "exercise prevents sugar from accumulating in the blood by triggering muscles to take up more glucose from the blood stream and use it for energy." It reduces risks of developing diabetes and improves symptoms of a diabetic patient.

*"Now I sleep better, my weight has reduced, my blood pressure is no longer high and my blood sugar level also dropped." (participant 2)*

*Doing exercises will keep people busy and prevent them from thinking too much about their diseases.*

The first participant commented and advised other patients with chronic diseases to keep themselves physically active, and do exercises regularly because it will prevent them from thinking more about their diseases, which might also lead to a negative impact. According to Riner (2013), most people reports they feel calm and they have a sense of wellbeing after they exercise.

*Theme 2 Lack of knowledge on benefits of physical activities on people's health*

Most of the participants suggested that health care worker should start giving intensive health education to patients on chronic diseases and how to prevent them or improve the conditions. Some participants expressed their lack of interests in doing exercises regularly. Chaves (2015) stated that physical inactivity may be due to lack of knowledge of physical activities benefits or lack of motivation to exercise.

*Most of the people do not know that being physically active helps to improve conditions of people with chronic diseases.*

During the interview, the researcher noticed that patient have a very poor understanding of how physical activities prevent and improve chronic diseases. Majority of them only knows the benefit of reducing weight and not other positive effects. Confirmed by the following quotes from the participants as they respond to the research question "How do you think physical activities improve the health conditions of patients with chronic diseases?"

*"No I think it is helping a lot, because it brings changes or improvements as I said earlier that it has also brought me changes." (participant 2)*

*"You know when you are physically fit, and you are not like fat, its helping like, let me say like blood pressure, it is bringing the blood pressure down." (Participant 3)*

Participant 1 responded as follow:

*"I think they improve very much because, most of the people who are fat are always the ones going to hospitals with problems and, compared to the ones that are fit and who looks stronger and healthier and they also.... The fat people are always also having problems with their bodies and the diseases."*

*Poor health education on living a healthier lifestyle to patients with chronic diseases is provided.*

According to estimations of the world health organization, cardiovascular diseases are the current leading causes of death and disability globally. Although a large portion is preventable, their incidence continues to increase mainly because preventative measures are inadequate [18]. Simple basic educational program may improve symptoms and

modify chronic diseases risk factors in outpatient population.

Looking at the way participants are suggesting that health workers should give more health education, and also the way patients do not really understand the outcome of physical inactivity, it is obvious that health education to the targeted population is inadequate.

Participant 6 stated that:

*"I don't think that patients get enough information about their diseases. Another thing is that, we are not told about things that can also help us apart from the medications. I didn't really know if exercises can also help me."*

This is also supported by participant 5, saying that:

*"Nurses and doctors should give more information to their patients. They should also explain more and not just give medication and keep quiet."*

*Physical inactivity among people with chronic diseases.*

Physical inactivity is the primary cause of chronic diseases. It is defined as physical activity levels less than those required for optimal health and prevention of premature death [4]. The reason why people don't exercise is lack of time, most people seems to be busy and makes it also challenging for them to prioritize exercising. The second reason why people are physically inactive is lack of support. Other reasons why people are physically inactive is lack of knowledge, uncomfortable or lack of options.

*Parents of children with chronic diseases overprotective of their sick children.*

Riner (2013), stated that due to medical limitations and contraindications, much care must be taken to make certain that children are involved in the appropriate volume and intensity of exercises. But, the priority beyond concern for safety should be focused on ensuring the highest quality of life possible. Some parents tend to be over protective of their sick children and they do not allow them to go out and play with others or do some work. This makes them more physically inactive and as a result reduces their chances of recovery. This is supported by the data obtained from participant 1, when he said that:

*"When I was small, my parents use to be... to be worried, aa for me to get sick and they didn't usually let me play with my friends or to do physical activities."*

*Lifestyle changes sometimes also alters the person's physical activity status.*

Changes in the way one is living may alter their physical activeness. If student used to go to school by walking every day and then changed and start going with a car, this reduces his or her level of physical activeness. Participant 1 parents didn't allow him to go to school walking or play around with others, and as a result, he use to get more often.

Participant 1

*"It wasn't an advice or neither a decision but I started doing exercises..... yah, the changes started occurring when I started walking, my parents started to let me walk to and from school, and when I started doing those activities like pushups, seatups and playing soccer with my friends and also carrying heavy staffs sometimes."*

Poor life style changes, such as smoking, overuse of

alcohol, poor diet, lack of physical activity and inadequate relief of chronic stress are key contributors in the development and progression of preventable chronic diseases, including obesity, type 2 DM, HPT AND cardiovascular diseases [18]. This information is supported by participant 2 response to the first research question which is: *"Are you physically active?"*

*"No, I don't do any exercises, I don't have any day that I did exercises in my life. It's rare for someone to find me moving, walking long distance or doing some heavy work"*

## 6. Conclusions, Recommendations

### 6.1. Conclusions

The second objective was to explore the understanding of chronic diseases patients on how physical activities are beneficial to them, the researcher, and the draws conclusions of the entire research study, presents the recommendations and then the limitations encountered during the research process.

*Objective 1 assess the impact of physical activities on the prognosis of chronic diseases.*

This objective was met through face to face interview with patients who are living with chronic diseases, both those that are physically active and those that are not. The researcher found out that patients who are more physically active have a better prognosis and they do not get sick more often. Patients who are physically inactive reported that their medication seems to be not working and therefore their conditions are not improving.

*Objective 2 to explore the knowledge of chronic diseases patient on how physical activities are beneficial to them.*

This objective was also met through face to face interview by asking the participant how they think physical activities impact their chronic health conditions. Most of the participants agreed that physical activities are of an advantage to their conditions. But, they lack a deep understanding of how physical activities prevent and improve chronic diseases.

### 6.2. Recommendations

The study recommends the following, based on the findings of the research:

The Ministry of Health and Social Services (MoHSS) should implement programs to provide information regarding healthy lifestyles to people in order to prevent chronic diseases and reduce rate of chronic diseases development.

Physical activities or exercises should be a prescription for people with chronic diseases attending at outpatient IHO.

Recommendations for further research on the related topic.

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