Research Article

Explorative Study of Sport and Health in Burundi Country

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Abstract: Sports have many effects on the human health, many various of sports are practiced in different country. The research aims were exploration of the current situation of sport and health in Burundi. This is an explorative research with mix methods. The sample study were 134 subjects taken by random. The data collection technique was Google form, interview, and literature review. Data were analyzed with descriptive statistic.The result showed that more than 50% from the surveyed population were sedentary, and the risk of health was strong high. Therefore, 9,7% or 13 subjects were suffering from diabetes meltus, 17,16% have hypertension disease,5,22% have hypotension, 2,23% have high glycemic, 3,73% have stroke, 13,43% have LDL cholesterol, 11,19% have cardiovascular diseases,17,16% have kidney, 5,22% were asthmatic,40,29% or 54 persons have eyes diseases, 5,22% have angina, and the last disease detected was the fatigue with in 74 patients or 55,22% from the surveyed sample. The problem of food and drink were found as the causes of the above diseases, 75,3% have a lack of food, 73,9% drank under 2,5litres.In conclusionBurundi people still need more sensibilization about the effect of sports on health, and performance.

Keywords: physical activity, diseases, health, performance

1. Introduction

Practice of sports has main benefits to the human health, it can help to relieve pain, increasing physical fitness, and it can prevent against various diseases. One study conducted examined the association of physical activity (PA) intensity levels and sedentary time with health-related quality of life (HRQoL) in women with fibromyalgia and whether patients meeting the current PA guidelines present better HRQoL.All PA intensity levels were positively correlated with different HRQoL dimensions with $p < 0.05$). Light, moderate, and moderate-to-vigorous physical activity (MVPA) was independently associated with social functioning ($p < 0.05$). Sedentary time was independently associated with physical function, physical role, bodily pain, vitality, social functioning, and both the physical and mental component summary score (all $p < 0.05$). Patients meeting the PA recommendations presented better scores for bodily pain (Gavilán-Carrera et al., 2019). Physical activity has a strong effect on neuromuscular fatigue and recovery profiles in individuals with intellectual disability(Durstine, Gordon, Wang, & Luo, 2013, Borji et al., 2019, Maugeri et al., 2020)

The extra recent lookup on the fitness effects of bodily activity in younger youth focuses generally on youngsters of pre-school age (3-5 years). Further, this research objectives symptoms of 2 necessary pediatric fitness outcomes—weight status/adiposity and bone health. The 2018 PAGAC concluded that, for both weight status/adiposity and bone health, there was once robust proof linking higher levels of physical activity to better effects in 3- to 5-year-old adolescents(DiPietro et al., 2019). The notion that exercises has a multitude of benefits, specifically for health, has beenaround for millennia.1 Physicians' usual focal point on the prevention of diseaseand the upkeep of fitness requires them to find interventions that will helppatients, with as few unfavorable results and reactions as possible(DiPietro et al., 2019,Tayech et al., 2020)Clinical exercise or therapeutic exercise is a subtype of physical activity (PA), defined as the implementation of the sports science knowledge involving physiologic, metabolic, and structural responses and prescribing principles to short- and long-term PA with clinical relevance to the management of health conditions, therapeutic exercise has been used to restore Parkinson's disease (PD) which was currently the second most common neurodegenerative disease and it was expected that its prevalence doubles over the next 20 years (4). Although several pharmacological and surgical therapies proved to be effective for symptomatic control, there is no effective disease modifying treatment yet, and the available symptomatic therapies have several flaws (5–7)(Bouça-Machado, Venturelli, Tinazzi, Schena, & Ferreira, 2020).

Many researches have been done, and make very clear how important adequate nutrition was to the performance and well-being of athletes and how far reaching the negative effects of low energy(Spriet, 2019). Chronic diseases are essential killers in the modern-day era. Physical inaction is a fundamental reason of most chronic diseases. The initial 0.33 of the articles considers: pastime and prevention definitions; historical proof displaying physical inactivity is unsafe to fitness and normal organ functional capacities; motive vs. treatment; bodily endeavor and state of being inactive mechanisms differ; gene-environment interaction [including cardio education adaptations, customized medicine, and co-twin physical activity]; and specificity of adaptations to type

of training. Next, physical activity/exercise is examined as important prevention towards 35 chronic stipulations [Accelerated biological aging/premature death, low cardiorespiratory health (VO2max), sarcopenia, metabolic syndrome, obesity, insulin resistance, prediabetes, kind 2 diabetes, non-alcoholic fatty liver disease, coronary heart disease, peripheral artery disease, hypertension, stroke, congestive heart failure, endothelial dysfunction, arterial dyslipidemia, hemostasis, deep vein thrombosis, cognitive dysfunction, despair and anxiety, osteoporosis, osteoarthritis, balance, bone fracture/falls, rheumatoid arthritis, colon cancer, breast cancer, endometrial cancer, gestational diabetes, preeclampsia, polycystic ovary syndrome, erectile dysfunction, pain, diverticulitis, constipation, and gallbladder diseases](Booth, Roberts, & Laye, 2012, Anderson & Durstine, 2019).

Many researches have been done in different countries to evaluate the impact sports science on the performance, health, product, economy, social and environment.**Why is necessarily to do an explorative study in Burundi Country?.** Based on the result above and the observations done in Burundi country the current situation showed that: (1)The prevalence of absent is very highin the different fields of jobs, (2) in some sectors aera there is a remarque of dropping productivity, (3) The high prevalence of people who visit the hospital was very remarked , (4) there no one research done, related to the relationship between sports science and health in Burundi the reason why anExplorative Study of Sport and Health in Burundi Country is very needed to be done in order to evaluate the level or the relationship which exist between sports science and health.The urgence of the following study if there is no solution about the many problems will occur in the hand of health, economic, mental, and social. There is a strong need of this study in order to know the cause of the

2. Methods

This is an explorative research with mix method qualitative and quantitative study. The pattern of this study were 134 topics taken with the aid of random and they were from in the various parties of Burundi Country. The subjects were aged between 16-75 years, 68,7% or 90 subjects were male and 31,3% or 41 subjects were female. The information collection technique used Google form, interview, and literature review. Data have been analyzed with descriptive statistic.

3. Procedure

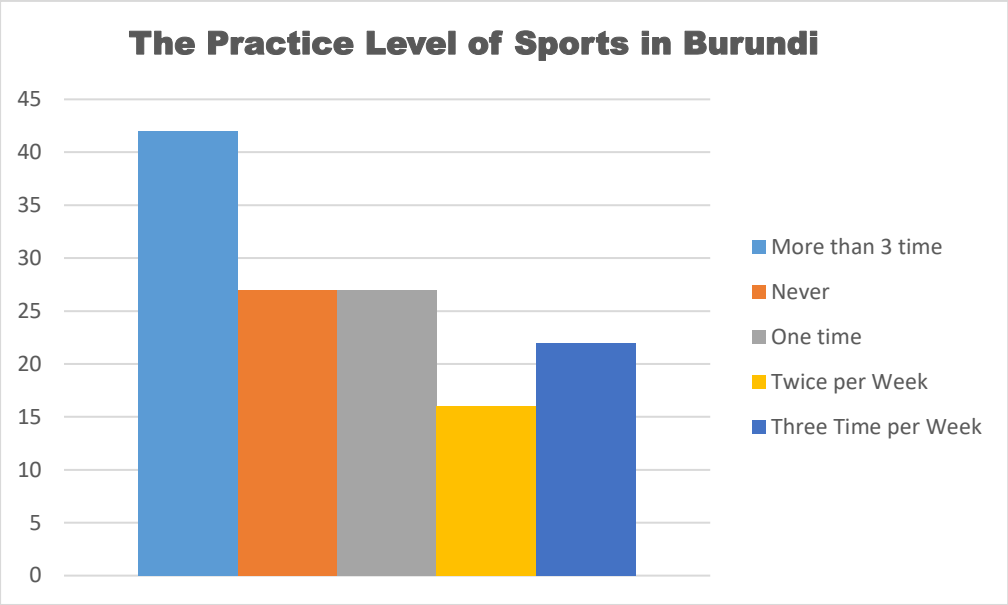
To check the stage or the current situation of Sport and Health in Burundi Country, a Google shape questions have been conducted to recognize the link between sport and health. People have to complete the questionnaire associated to link between sport and human health, an interview of some of the situation was once been performed to prosperous extra data about the effect of sport on health.

4. Result

The results were presented corresponding on the questions conducted in the google form in order to get the information about sport and health. Thirst the researchers began to know the level of sport in Burundi Country, next was the diagnostic of people with diseases because they rarely do sport, food nutrition was evaluated, and the last musculoskeletal disorders related to the workplace were carried out. The result from the following researchwas presented below:

How main time and what sport do you do?

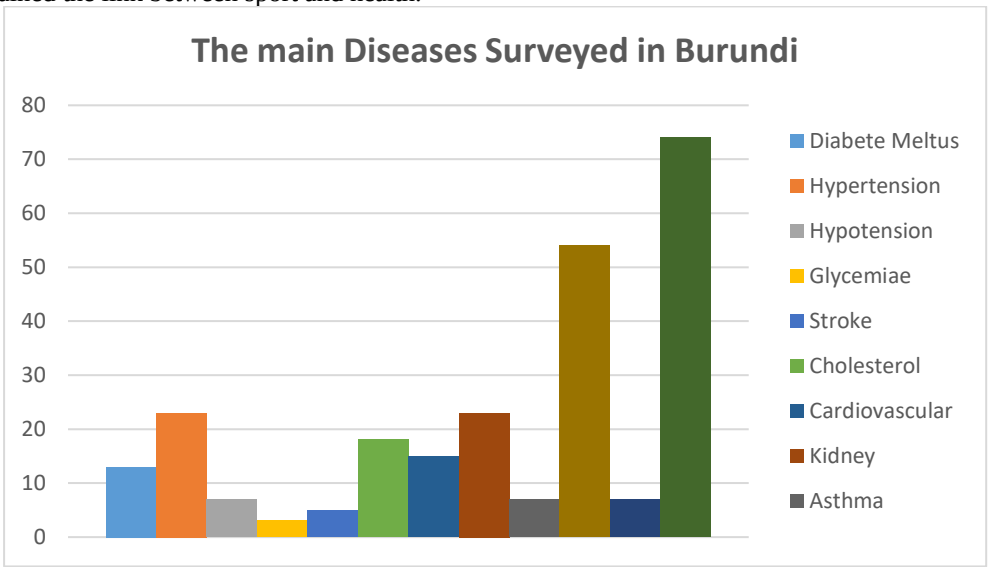
This question has been asked to assess the level of practice of sport, and which kind of sports are being practice in Burundi



From 134 subjects surveyed, the result showed that 20,1% did never sport, and this one has a strong impact on the human health, after a health diagnostic some of the people have cardiovascular diseases, cardiorespiratory diseases, musculoskeletal diseases caused by a physical activity because they take more time in sitting position, more time in their job, more time in standing position like police and soldiers. 20,1% from the surveyed rarely doing sport, only once per week, this level was not enough in the improving of the human health. 11,9% from the whole sample only twice per week in sport activity, this one also is not sufficient in maintaining people health. 46,7% practice various Sport more than three times per week, for them the result showed that their health was quite good. The most sports done in Burundi are: jogging, running, and sports game for some sports clubs.Operational the result showed that more than 50% from the surveyed population were sedentary and the risk of health was strong high.

The Main Diseases in Surveyed People

This survey has been conducted to know what kind of diseases caused by sedentary condition. The following graphic explained the link between sport and health.

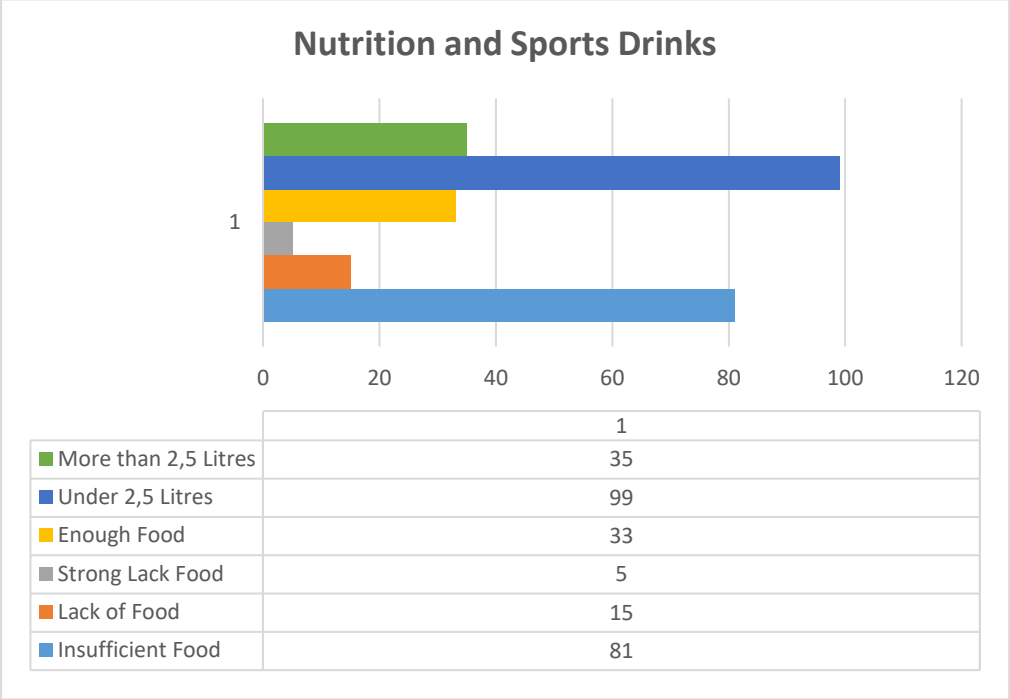


The result showed that 9,7% or 13 subjects were suffering from diabetes meltus, 17,16% or 23 people have hypertension disease,5,22% or 7 subjects have hypotension, 2,23% or 3 individuals have high glycemic, 3,73% or 5 patients have stroke, 13,43% or 18 subjects have LDL cholesterol, 11,19 or 15 individuals have cardiovascular diseases,17,16% or 23 persons have kidney, 5,22% or 7 subjects were asthmatic,40,29% or 54 persons have eyes diseases, 5,22% or 7 samples have angina, and the last disease detected was the fatigue with in 74 patients or 55,22% from the surveyed sample. After analyzing the above result, it can be concluded that all the diseases found above are related to the non-active in sport or sedentary condition. Therefore, the view of the later result gave the current situation of Burundi people about diagnostic health. In sports science and health, the researchers

could mention that Burundi country still with a strong need in sports, science, sport and health, sports training, and physical activity in order to help or to allow the improvement of health. Burundi still need a high sensibilization about the effect of sport on diseases. The effect from the above diseases were very remarkable in the various field like a dropping of public economy, social economy, educational performance, after those impacts, there were physical and mental defis from the above list disease on Burundi people.

What your level about Nutrition, and Drinks?

This question has been asked to assess the level and nutrition quality, all people surveyed have given the grade of their nutrition. The below pie showed the result from the research.



	1
More than 2,5 Litres	35
Under 2,5 Litres	99
Enough Food	33
Strong Lack Food	5
Lack of Food	15
Insufficient Food	81

About Nutrition, the following result showed that 60,4% from the whole sample attested that they don't have enough food, 11,2% from the population surveyed have lack of food while 3,7% from the subjects have a high lack of food. This research showed that only 24,7% have enough food. A constatation can be taken that the more people didn't eat enough the more the performance is waste, this statement was based on the high number of students whom constituted this research, with interview, and field at one university of Burundi where most physical education, and training students studied, their performance was not good like strength, endurance muscle, and speed. The researchers found that there were many diseases caused by insufficient food.

About Sport drinks, how much drinks and what kind of drinks did you take during your work**?**This question has been asked to assess how much Burundi People drink, the result showed that 73,9% drank under 2,5litres per day, this one has a strong effect on the kidney, the digestion. There a high level of people who are suffering from kidney disease. On the hand of athlete, and physical education, sports training students they have a low performance a cause of dehydration ,and the most of them drunk only water and forget sport drinks like energy drink. Burundi people still need more sensibilization about the effect of sports on health, and performance.

5. Discussion

From the result above more than 50% from the surveyed population were sedentary and the risk of health was strong high like diabetes meltus, cholesterol(LDL), asthma, eyes diseases, cardiovascular diseases, respiratory diseases, chronic diseases, musculoskeletal diseases. This problem is not located in Burundi Country but in South Asia specific reviews on the role of physical activity (PA) domains on chronic disease prevention are lacking(Paudel, Owen, Owusu-Addo, & Smith, 2019, Zhou, Hughes, Grady, & Fang, 2018). Some countries did not give more important on the evaluation of sports science and health, they neglect its role, by the way it must be assessed in order to allow the developing in sport and health. Sedentary condition has a strong impact on economy, social, education because it decreases the body capacity(Rawlings et al., 2019).With pandemic Covid-19, many people were suffering from stress and they need physical activities to restore the anxiety, and stress(Dunton, Do, & Wang, 2020, De Sousa et al., 2021)Those problems were observed in Burundi, but in Asia also. The result from this study could be like example to help others countries to often give value the sports

science because it can help to resolve many public problems like decreasing of chronic diseases, decreasing of musculoskeletal disorders (MSDs), increasing athlete performance, well-being, improving education, and creating of many products in various sectors.

About nutrition, the research showed that most of people in Burundi took insufficient food which has a strong negative impact on the productivity from economy, education, social, and the performance of athlete. Some researches about nutrition showed that Nutrition is increasingly more identified as a key aspect of most reliable sporting performance, with each the science and practice of sports activities vitamin creating rapidly. Recent research have discovered that a planned scientific nutritional approach (consisting of fluid, carbohydrate, sodium, and caffeine) in contrast with a self-chosen nutritional strategy helped nonelite runners entire a marathon run faster and educated cyclists complete a time trial faster(Beck, Thomson, Swift, & von Hurst, 2015, Polero et al., 2021). This research done by Beck supported that every human need to pay attention on his nutrition. Nutrition is a critical element to any athletes coaching and overall performance program. In adults the balance between energy intake and strength demands is critical in training, recovery, and performance. In young athletes the demands for coaching and performance remain but ought to be a secondary focus in the back of the needs associated with retaining the appropriate growth and maturation. Research interventions imposing widespread physiological hundreds and weight loss program manipulation are limited in adolescence due to the ethical concerns related to manageable terrible effects on the increase and maturation procedures related with younger individuals. This vital difficulty effects in practitioners supplying dietary instruction to younger athletes to be counted on exercise nutrition tips meant for adults. While many of the suggestions can accurately be repurposed for the younger athlete interest needs to be taken toward the variations in metabolic desires and physiological differences(Smith, Holmes, & McAllister, 2015, Sarah, 2017, Thomas, Burke, & Erdman, 2016).

The study showed that the most people in Burundi neglect the important of water while most of them have kidney disease, this neglect was observed not only in Burundi but also in the whole world. Sports drinks has a strong positive effect on increasing performance, decreasing fatigue, decreasing stress(Brink-Elfegoun et al., 2014, Johnson, Foster, & McDowell, 2014). In general, this research everybody to know the important of sports science on health to remind expert in sports science to continue to promote the benefits from physical activity on performance, well-being, educational effects from sports science, economic impacts, social benefits. People cannot expect a high development if they neglect the important of sports science. The government of each country has to parenting the sports science in order to allow more people to assess the positive benefits from sports science.

6. Conclusion

The current situation in Burundi about sports science was found with low level, the sedentary has many impact on human health, student's achievement, economic, social. The current situation in Burundi has marked that this field has been neglected in research while it has a strong factor in the development. Burundi still need the improvement of the service materials, people need to manage the time whether most of them work more than 9 hours per day, at the end the study care out that most people do not have time for sport.

7. Acknowledgement

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8. Conflict Of Interest

This research has no conflict of interest.

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