

# A COMPARATIVE ANALYSIS OF HAPPINESS INDEX WITH GROSS DOMESTIC PRODUCT AND ITS IMPACT ON QUALITY OF LIFE ACROSS THE GLOBE

Asawari Ashutosh Nagwanshi<sup>1</sup>, Prabu D<sup>2</sup>, Suganya P<sup>3</sup>, Rajmohan M<sup>4</sup>, Bharathwaj V V<sup>5</sup>, Sindhu R<sup>5</sup>, Dinesh Dhamodhar<sup>4</sup>, Prashanthi M R<sup>3</sup>

<sup>1</sup>Undergraduate Student, SRM Dental College and Hospital, Ramapuram, Chennai, India

<sup>2</sup>Master of Dental Surgery, Professor and Head, Department of Public Health Dentistry, SRM Dental College and Hospital, Ramapuram, Chennai, India

<sup>3</sup>Post Graduate Student (Master of Dental Surgery), Department of Public Health Dentistry, SRM Dental College and Hospital, Ramapuram, Chennai, India

<sup>4</sup>Master of Dental Surgery, Reader, Department of Public Health Dentistry, SRM Dental College and Hospital, Ramapuram, Chennai, India

<sup>5</sup>Master of Dental Surgery, Senior lecturer, Department of Public Health Dentistry, SRM Dental College and Hospital, Ramapuram, Chennai, India

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## ABSTRACT:

**AIM:** This study aims to analyze the association of happiness index with the Gross domestic product (GDP) and Quality of life among various countries in the world.

**MATERIALS AND METHOD:** The study was conducted to evaluate the association of the parameters such as Happiness index, GDP and Quality of life among fifteen different countries in the world based on the happiness index ranking in the year 2019. Then data regarding the Quality of life and Gross domestic product of these countries were obtained from the electronic databases using keywords. Finally, the collected data were tabulated and analyzed using descriptive analysis.

**RESULTS:** The most and moderate happiest countries had a good quality of life compared to those with the least happiness index. The countries with moderate happiness index had a very high GDP rank compared to other countries with the most and least happiness index.

**CONCLUSION:** The happiness of the country strongly depends on the Quality of the people. Even country with the highest GDP ranks low in the happiness index. Therefore, the government should spend more effort on the well-being of the people for the well-being of the nation.

**KEYWORDS:** Happiness index, Quality of life, Gross domestic product, Association, Health.

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## INTRODUCTION:

Gross domestic product (GDP) is the standardized measurement of the value of final services and goods produced by the country within a given period. It is the single most crucial indicator to capture these economic activities; it is not a good measure of social well-being and living standards of people. <sup>[1]</sup>

Simon Kuznets first introduced GDP for a U.S. Congress report in 1934. The amount of GDP is the sum of value-added and measured at the change in the composition of GDP puts forward a vital question mark since growth and economic productivity was reflected by GDP and had a massive impact on nearly every citizen within that economy. GDP also shows the role of services and manufacturing sector in the economy and how does it affect the financial health of the country. Hence it was essential to understand the nature and direction of the relationship between the economic growth of a nation and its components at constant prices by government, industries and households operating in the economy. GDP accounts for all domestic production regardless of whether the income sums up to domestic or foreign propaganda. <sup>[1]</sup>

The Happiness Index is a vital survey instrument that evaluates happiness, well-being, and aspects of sustainability, maintenance and flexibility of each country. The Happiness Alliance developed the Happiness Index to provide a survey instrument to the community and others seeking to use a subjective well-being index and data. This instrument can be used to measure contentment with life and the conditions of life. It can also be used to define income irregularity, faith in government, and sense of community and other aspects of well-being within a specific sector of a population. <sup>[2]</sup>

Gross National Happiness (GNH) measures the Quality of a country more holistically and believes that the beneficial development of human society takes place when material and spiritual growth coincides with complementing and reinforcing each other. GNH index is based on four pillars. [2,3]

Quality of life (QOL) has become a vital and often required part of health outcomes assessment. For populations with a chronically diseased body, measurement of QOL gives a meaningful way to determine the impact of health care when a cure was not at all possible. Over the past 20 years, hundreds of instruments had developed to measure QOL. Health care management needs to be clear about the concept of QOL and not to confuse it with functional status, symptoms, disease processes, or treatment side-effects. Although the definition of Quality of life is still in an ongoing process, Revicki and colleagues define Quality of life as "a broad range of human experiences related to one's overall well-being". It implies value based on subjective functioning in comparison with personal expectations and is defined by subjective experiences, states and perceptions. This definition denotes a meaning for QOL that is beyond health. The Quality of Life Scale (QOLS) was first developed by American psychologist John Flanagan. [4,5]

The QOLS was previously a 15-item instrument that measured five conceptual domains of Quality of life: material and physical well-being, relationships with other people, social, community and civic activities, personal development, fulfilment and recreation. After descriptive research that interrogative mindset of persons with chronic illness on their perceptions of Quality of life, the instrument was enlarged to include one more item: Independence, the ability to do one's work/decision by their effort. Thus, today in the present, QOLS format contains 16 items for the individual within each category in the original Flanagan version of the scale. [4,5]

For a country to be in a good state, the economics and the Quality of life of the people prioritizes the most vital thing. By this, the happiest position of the country will be predicted. This present study aims to analyze the correlation of the happiness index, quality of life and gross domestic product overall around the world.

## MATERIALS AND METHOD:

In this paper, the Happiness index and its relationship with Gross domestic product and Quality of life were evaluated. The data regarding the happiness index, Quality of life and Gross domestic product were obtained from electronic sources such as GDP ranked by country –world population review, world data .info, world happiness report.

Based on the happiness index 2019, the most five happiest countries, the moderate five happiest countries, and the least five happiest countries were only considered for ease and generalization of the analysis.

Simultaneously the data regarding the Quality of life and Gross domestic product among most five, moderate five and least five happiest countries were obtained. The collected data were analyzed and tabulated accordingly in Microsoft excel using descriptive analysis.

## RESULTS:

**TABLE 1: Ranking of Gross domestic product (GDP) among the most five happiest countries**

S. No	Countries	Happiness index (Scores)	Gross domestic product (Rank)
1.	Finland	7.769	44
2.	Denmark	7.600	39
3.	Norway	7.554	31
4.	Iceland	7.494	106
5.	Netherlands	7.488	17

Table 1 depicts the association of Gross domestic product (GDP) among the most five happiest countries. Though Iceland had a very low Gross domestic product, it ranks the fourth place in the happiness index.

**FIGURE 1: Association of GDP and Quality of life among most five happiest countries**

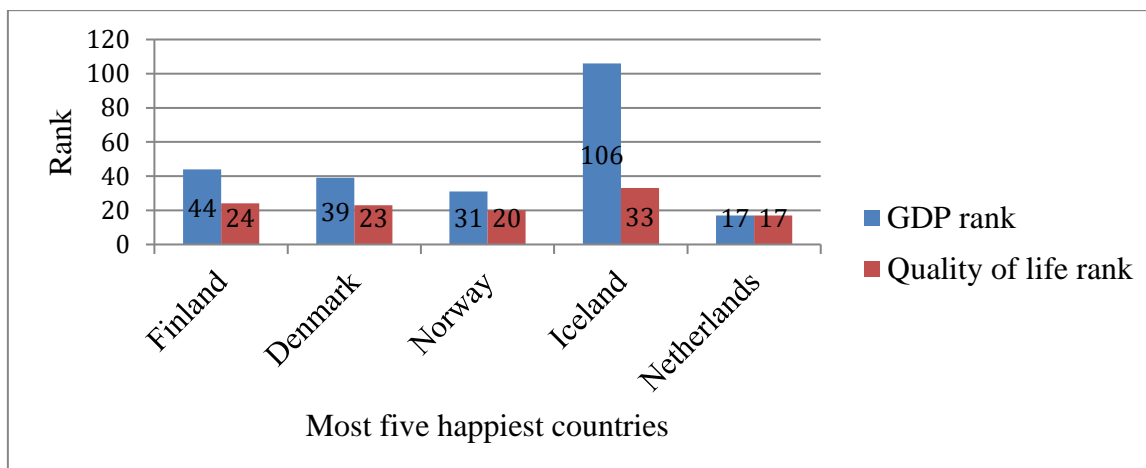


Figure 1 depicts the relationship between Quality of life and Gross domestic product among most five GDP countries. Iceland had a good quality of life with a low gross domestic product.

**TABLE 2: Ranking of Gross domestic product (GDP) and Quality of life among moderate five happiest countries**

S. No	Countries	Happiness index (Scores)	Gross domestic product (Rank)
1.	Hong Kong	5.430	34
2.	Dominican republic	5.425	66
3.	Bosnia and Herzegovina	5.386	114
4.	Turkey	5.373	18
5.	Malaysia	5.339	35

Table 2 depicts the association of Gross domestic product (GDP) among moderate five happiest countries. The moderate happiest countries had a high rank of the Gross domestic product except for Bosnia and Herzegovina, which had a low GDP rank.

**FIGURE 2: Association of GDP and Quality of life among moderate five happiest countries**

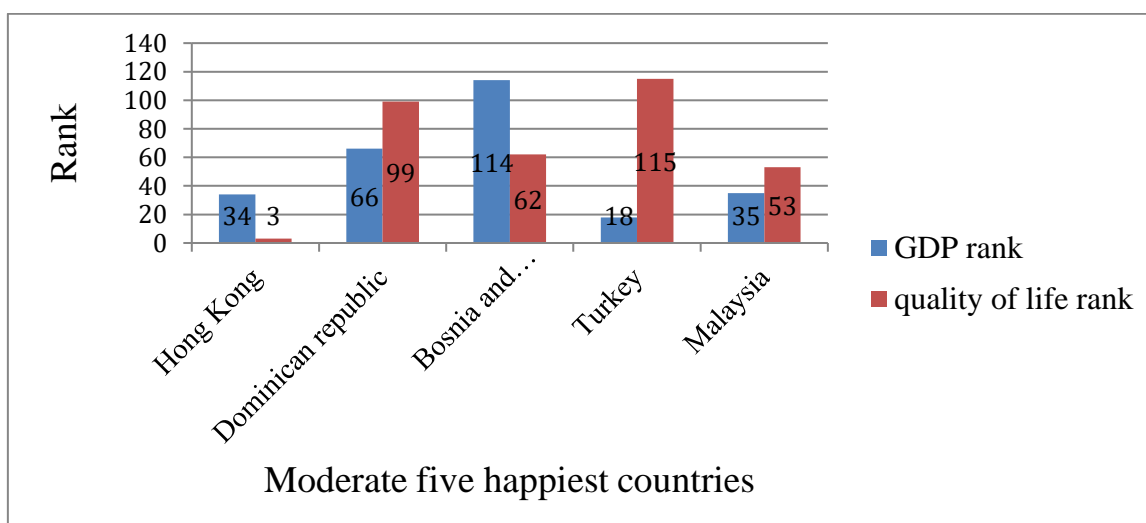


Figure 2 depicts the association of GDP and Quality of life among moderate five happiest countries. These countries had a high GDP rank with a good quality of life. Hong Kong had an outstanding quality of life with a high GDP rank, whereas Turkey had a very high GDP rank with moderate Quality of life.

**TABLE 3: Ranking of Gross domestic product (GDP) among the least five happiest countries**

S. No	Countries	Happiness index (Scores)	Gross domestic product (Rank)
1.	Yemen	3.355	102
2.	Tanzania	3.303	76
3.	South Sudan	3.254	164
4.	Central African Republic	3.083	166
5.	Burundi	2.905	158

Table 3 depicts the association of least five happiest countries with Gross domestic product. The countries with the least happiness index had a very low gross domestic product.

**FIGURE 3: Association of GDP and Quality of life among the least five happiest countries**

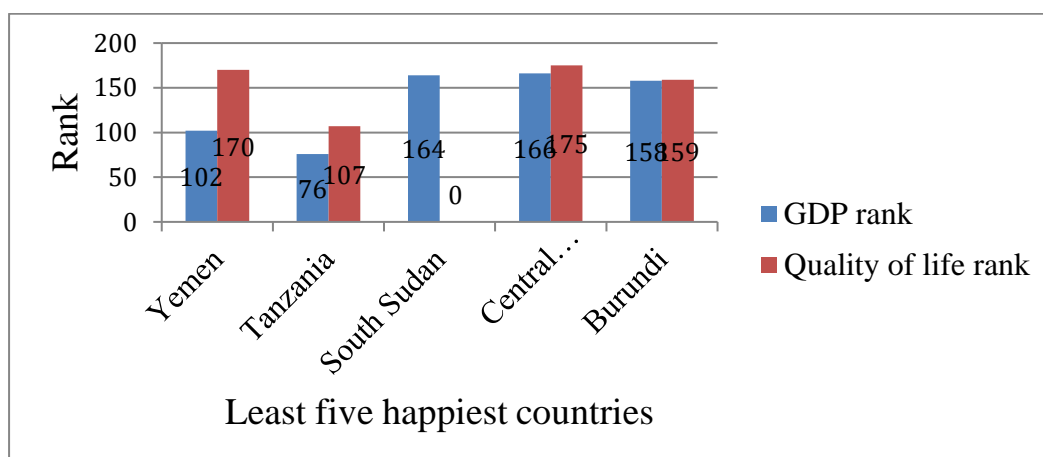


Figure 3 depicts the association of GDP and Quality of life among the least five happiest countries. These countries had a poor quality of life with low GDP. The countries such as Tanzania and Yemen had an average GDP with low Quality of life. The data regarding quality of life rank for South Sudan were not available.

**DISCUSSION:**

The research was conducted to study the comparison between GDP, happiness index and Quality of life among different countries of the world. The countries are classified according to the happiness index. This study states that even countries with very low GDP had a good quality of life. Thus capital is not the only parameter to be happy and improve the Quality of living. This study

gives us the report that GDP, happiness and Quality of life do not walk hand in hand. Various studies on the happiness index had shown significant differences. Finland ranks first place in the happiness index of was the world based on happiness index, even though the GDP ranks low. The reason behind this significant difference was that the citizens of Finland felt more independent, and the government gave more value to the rights and freedom of the people than any other countries.<sup>[6]</sup> The psychological importance and liberty of self-respect given to the people were the critical points for this country to be the best rank in the happiest index overall in the world.

Finland had profitable economic growth in past, but in the year 2019, the graph started to fall because the new government was spending more money on the education aspect, infrastructure, employment and climate scheme. The financial pillar is sound, but some extra measures have to be taken by their government.<sup>[7]</sup> Finland ranks first place in the happiness index because the population of Finland had a better year of good life (YoGL). Finland had both life satisfaction and longevity in both subjective and objective dimensions. The Finland government had focused on investing in cognitive development and for the human well-being of their country. They had highly advanced industries, sound finance and a well-functioning welfare system, and it was the best-governed country in the world. Finland also had excellent demographic data, which had a gradual crude death rate and crude birth rate.<sup>[8]</sup>

The happiness of the country is not only based on the economies or GDP per capita of the country. It was based on the welfare, life satisfaction and well-being of well-being and life satisfaction of the population of their country, which leads their nation to be associated in the first rank of happiness index. The living standards and well-being were very well in Denmark. Yes, Danes had a stable government, less grade of public corruption, and outpouring of high-quality education and medical crisis. This country had the highest taxes in the world,<sup>[9]</sup> but most of the majority of Danes citizens was very happy to pay the taxes because they believed higher taxes could create a better society. Danes reported higher levels of satisfaction and enjoyment. Even they have a low income, they have well understanding to live their life in what they have. The high levels of satisfaction and positive attitude were granted to them. These were the key points that kept them at the top in happiness index.<sup>[10]</sup> The Quality of life depends on the strength and weaknesses of the medical situation in the state; the strength is calculated based on quality assurance system, patient rights, high patient satisfaction, control in expenditure and remarkable eye on palliative care. The weakness of the country depends on low life expectancy.<sup>[11]</sup> The lack of vision for the people in remote areas and difficulty for easy access to the hospitals was the major drawback of the country to be in low Quality of life.

The happiness index of Norway slipped down to the third position from first according to 2018 article. However, still, it was the most beautiful country in Europe with fewer cases of corruption, well-built social support and independence. These properties make this country to be one of the happiest countries in the world.<sup>[12]</sup>

The Quality of dynamic business and well management of natural resources wealth has helped to push Norway among the highest levels of GDP in the world. Output growth is retrieving, well-being stills remain sound in many dimensions of GDP.<sup>[13]</sup> The life expectancy of Norway was 81, according to OECD, and it was higher than the average. Moreover, Norway had less pollution and not surprisingly, almost 100% of Norwegians were satisfied with their daily life. When people were asked about their life satisfaction with a rating from 0 to 10, Norwegians got a rating of 7.5, which was higher than the 6.6 OECD average. Norway is one of the best countries with a low crime rate; they have a high quality of education.<sup>[14]</sup>

The tiny Iceland solitary provides a boon to the citizens than a burden. The country with a low tax, free health care services and medication, excellent feasible education and a landscape that makes every person happy.<sup>[15]</sup> The Icelandic economy was an open high-income economy combining a free market economy with a welfare state. Although income per capita was high, Iceland had the smallest economy as per OECD, compared to the previous year annual gross domestic product of USD 25.9 billion.<sup>[16]</sup> Iceland is a small society where most family members live close to each other. Their links between family and friends were strong. Icelanders easily maintain their relationship with anyone; this was the main reason why Icelanders are so happy. Icelanders feel they have a good life in Iceland, and they have reasonable control of their lives.<sup>[17, 18]</sup> The key points that make sound happiness index in the Netherlands were good income, a privilege to make life choices, healthy life quality, social backbone, amplitude and low corruptions levels.

GDP growth scale as per the year 2019 slipped down from 2% to 1.4%. The main reason might be due to the stumbled international economy. Inflation is increased by 2019 due to the increase in environmental taxes. However, the unemployment was lower can be a good sign of growth in the graph of GDP in future.<sup>[19]</sup> The Quality of life of Dutch cities had a high ranking, based on a variety of critical factors, including infrastructure, sanitation standards and climate. They have a low crime rate and high educational value.<sup>[20]</sup>

Hong Kong had a lower happiness index, and their smiles were faded away because of the housing crisis, lack of development, inequality based government, increasing wealth gap and distance.<sup>[21]</sup> Hong Kong is one of the wealthiest cities in the world, with GDP per capita standing at US\$38,784 in 2018 and a jobless rate of 2.9 per

cent. The GDP sounds good, but it is not all to run a country. <sup>[21]</sup> Hong Kong is one of the most densely populated territories in the world. In different global cities' ranking systems, Hong Kong is highly ranked in terms of economic prosperity while moderately or even lowly ranked in terms of QoL due to pricy housing and poor living conditions. The complexity and contradiction make Hong Kong an interesting case to explore the relationship between QoL and Housing Environment. <sup>[22]</sup> But in the year 2019, Hong Kong had an excellent quality of life when compared to other countries, even which ranks most in the happiness index. This might be due to the perfect maintenance of the health care services and the quality of treatment provided by the government.

The Dominican Republic had an open-market economy; the country larger employer includes tourism and finance. The agriculture industry still plays a vital role, nourishing the country's exports in commodities such as sugar, coffee and tobacco. <sup>[23]</sup> The World Bank noted that the Dominican Republic had made significant achievements in reducing poverty; the country has power and vulnerability to natural disasters, such as hurricanes Maria and Irma that swept across the Caribbean in 2017. The government also supplies adequate public services to the Dominican Republic's population had to improve its terms. <sup>[23]</sup>

As the World Bank says, maternal and infant mortality rates in the country were higher as compared to other countries; the Quality of life does get affected by this point. <sup>[23]</sup> The relevant data about Bosnia and Herzegovina was not available. Among the variables, Turkey plays the most substantial in social support, GDP per capita and sound healthy life expectancy. The incidence of corruption seems to be lowered in the country. <sup>[24]</sup>

Turkey's economic and social development plays an imposing role, leading to increased employment and incomes, which makes Turkey an upper-middle-income country. However, in the past few years, growing economic status and a more challenging outside environment threatened those achievements. <sup>[25]</sup> With a low cost of living, the country, live ups, it's with a fascinating blend of Eastern and Western traditions. Turkey scores high in the rankings in Quality of life and their acceptance towards other cultures. Turkish people are the friendliest, and the crime rate is lower down with reasonable life expectancy. <sup>[26]</sup>

Malaysia is a multi-ethnic country; even in a public place, there was a gunfight between police and robbers. On the other hand, with the changes in the socio-economic structure, the community systems were gradually changing. People were no longer familiar with each other, and everyday life relied on modern means of transportation, leading to an ever-expanding range of crimes. With the advent of the Internet age, communication is more convenient, which opens the door for criminal groups, smuggling drugs, human trafficking, online fraud and so on. <sup>[27]</sup>

Malaysia's economy, as measured by gross domestic product (GDP), expanded 4.3 percent from 4.7 percent registered in 2018, as per Bank Negara Malaysia. <sup>[28]</sup> Malaysia is one of the cheapest countries. The results of this survey were derived from various critical factors, including housing, education and cost of food, traffic, monthly income, environmental Quality, and taxation. As can be seen from these factors, Quality of life is not only a function of what we have access to or not but rather an array of indicators towards how comfortable people are in their lives. Malaysia was believed to open up a relaxing life experience with minimal difficulties. <sup>[29]</sup> In ancient times, Yemen was known as "Arabia Felix", Latin for happy or fortunate. But now it listed as one of the least happy countries in the world, according to the latest U.N. World Happiness Report. Its critical socio-political situation described Yemen's unhappiness. Yemen is one of the poorest countries in the world due to numerous wars, conflicts and terrorist attacks done by ISIS. <sup>[30]</sup>

Due to the violent conflict in March 2015, the economy of Yemen had deteriorated sharply. While official statistics updated that GDP was lowered by 39 percent since the end of 2014. The conflict caused widespread disruption of economic activities, with a mass reduction in jobs, private sectors jobs, and business opportunities. The cost of every material rose severely due to insecurity and lack of supplies and inputs, leading to massive damage to the economy of the country. <sup>[31]</sup> Extensive damaged Yemen is on course to become the world's poorest country if the conflict persists, the United Nations said in a report. Fighting has since killed tens of thousands of people, mostly civilians, and made Yemen fly off in fire or famine. <sup>[32]</sup> The U.N. has also described Yemen as the world's worst humanitarian crisis. So the overall analysis gives the reason to put Yemen at lowest countries and the mortality rate of this country was found to be very high.

The report to calculate the happiness among the citizen of Tanzania was done by giving an example of a ladder, with steps numbered from 0 at the bottom to 10 at top and asked the people on which step they

wanted to stand on. Most of the answers were on the bottom step because, during interrogation, they found out that people have lesser social support and relation amongst themselves were not sound, and they were dissatisfied with their freedom and to make life choices. The corruption rates were high than anyone could think of. The education and schooling were low in the country, stated the citizens. <sup>[33]</sup>

GDP growth of Tanzania was estimated at 6.8% in 2019, down slightly from 7% in 2018. The decrease of the economy from the previous condition is a diversified economy, characterized by strong private consumption, and enormous public spending, strong investment growth, and an upturn in exports underpinned the positive outlook of the Tourism, mining, services, construction, agriculture, and manufacturing. <sup>[34]</sup> While Quality of life in Tanzania has improved in recent years, but the country still faces various health challenges. Malaria contributes to the deaths of many young children, and HIV is the primary cause of death in adults. It also struggles to fight against the drug trade, forced labor and sex trafficking. <sup>[35]</sup>

South Sudan is called the youngest country in the world with a tag of least happy. It was born out of conflict, and still, in present days, war, conflicts had not ended. The U.N. estimated that 60 percent of people in South Sudan experience food insecurity and scarcity. <sup>[36]</sup> The country ranks low in various sectors, especially freedom. In 2019, the GDP of South Sudan was 3.68 billion U.S. dollars. Though South Sudan GDP fluctuated substantially in recent years, it tends to decrease through the 2013 - 2019 period ending at 3.68 billion U.S. dollars in 2019 as per reports. <sup>[37]</sup> Currently, there is no proper data regarding the Quality of life of this country. Although the quality of life index score had not available for South Sudan, the life of people in South Sudan was very worst due to political conflict, walled by economic wounds, and drought causing massive damage with increased violence and food shortages. Over seven million peoples mean about two-thirds of the population required medical help and be free from food shortage. The ongoing conflicts have pushed millions to the brink of starvation for years. In 2017, famine was in South Sudan, and this remained a curse to date ever. <sup>[38]</sup>

The Central African Republic was the least happiness index country. The country, which has been attacked by sectarian violence for decades, ranks low due to of the six factors, but the main reason was social support, healthy life expectancy and GDP per capita. <sup>[36]</sup> The GDP was slowed down at 3.8% and 4.8% in the years 2018 and 2019 due to the signing of a peace agreement done in February 2019, which affects economic activities. Inflation increased from 1.6 in 2018 to 3.2 in 2019. <sup>[39]</sup> This country still remains in high poverty due to the fall in the inflation rate.

The Central African Republic (CAR) was fixed in the tight hold of a chronic medical emergency. The Central African Republic has the second-lowest life expectancy in the world; CAR had a high mortality rate due to seasonal epidemics, economic downturns, conflicts, displacement, and inadequate health system. <sup>[40]</sup> In Burundi, next to poverty, the security of people has deteriorated since 2015; hundreds of thousands of citizens have fled the country because they were directly or indirectly threatened. Life in the refugee camps was also very risky and tiresome. The economic condition became worse due to the crisis; many people had lost their grip like students were no longer receiving breakfast, others had lost grants, many workers had lost most or all their income, the businessman had to close their firms. <sup>[41]</sup> These all situation makes Burundi the unhappiest country in the world, and that's why it ranks the last place in the happiness index. The economic recovery strengthened in 2019 (3.3% growth in real GDP) on the back of higher coffee exports, a slight increase in public. The risk of debt distress remains a high investment and a particularly good year for agricultural production. <sup>[42]</sup> Burundi's security services and members of the political ruling party youth league take over widespread human rights abuses throughout 2018, including summary executions, rapes, abductions, beatings. The government prohibited females who were pregnant or had a child from attending school. About four weeks later, the government reversed the decision without giving any reason. <sup>[43]</sup> These conditions might cause more stress among people and decrease their Quality of life. The overall analysis of this study shows that countries with the most and moderate happiness index had a good quality of life when compared to the least happiness indexed countries. The moderate happiness indexed countries had a very high GDP when compared to countries with the most happiness indexed.

## **LIMITATIONS:**

This study only included available data till the year 2019. Only countries based on most, moderate and least happiness indexed countries were considered, and the respective data about these countries were explicitly collected for the year 2019. Further inclusion of all other countries will give more relevant results and a better understanding of this perspective.

## **CONCLUSION:**

The happiness of the country and the Quality of life goes in hand. Though the GDP of the country increases the standard of the nation, the Quality of life plays a crucial role in the well-being of the nation. As we all know, the quote that health is wealth, keeping that in mind, the government should give more priorities to the health of people and should spend more amount of GDP on health. This paves the pathway to spreading happiness throughout the world.

**CONFLICT OF INTEREST:** Nil

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