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A Comparative Study of Mental and Physical Health Status in Iran and Singapore Based on the Legatum Prosperity Index

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Abstract

Background and Objective:

Health is considered one of the most influential factors affecting the welfare level of individuals in a society. This study aimed to compare the mental and physical health status of Singapore, recognized as the most successful country in this domain by the Legatum Institute, with that of Iran in order to examine strengths and weaknesses.

Methods

This research was conducted as a comparative study using a scoping review approach to investigate the mental and physical health status of the two selected countries, Singapore and Iran, across eight indicators categorized under two elements: mental health and physical health.

Findings:

The study findings indicated that, according to the Legatum Institute report, Singapore ranked higher than Iran in seven indicators (emotional health, depressive disorders, physical pain, health problems, infectious diseases, non-communicable diseases, and blood pressure), and only in the suicide indicator did Iran rank better than Singapore.

Conclusion

Given the close interconnection between physical and mental health, as well as the declining trend of these two elements contrary to other health-related elements, evaluating the indicators of these two elements and comparing them with the best-performing country globally in terms of health status according to the Legatum Institute can guide sound and informed policymaking in these domains, which necessitates drawing upon the experiences of successful countries.

Introduction

The World Health Organization defines health as the state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity(1). Health, along with other factors such as income and education, constitutes an influential factor in the economic growth and development of countries, which are affected by various factors, including economic and social determinants; conversely, improved health status and economic conditions share a bidirectional relationship. Therefore, to achieve economic growth and development, it is essential to identify factors affecting health, such as health expenditures, income levels, inflation, environmental factors, and education(2).

As the definition of health implies, ensuring physical, mental, and social well-being constitutes key factors in maintaining health(3), and promoting health status as a pillar of sustainable development is an important

component of social welfare. Today, humanity seeks development and improvement of life welfare in society(4). True welfare exists when all people have the opportunity to flourish by applying their unique potential and playing a role in strengthening their communities and nations(5).

Individuals who enjoy good physical and mental health report higher levels of welfare, whereas poor health status constitutes a significant barrier to realizing individual potential. Coverage and access to effective healthcare, together with behaviors ensuring a healthy lifestyle, are vital for maintaining individual and social welfare(5).

Mental health can be defined as positive feelings toward oneself and others, feelings of happiness, pleasure, and affection, which influence an individual's ability to function and maximize available opportunities and fully participate in family, workplace, community, and peer relationships(6). Mental health is a set of positive attributes. According to the World Health Organization's definition, mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his or her community." Mental health is an integral part of health and something more than the mere absence of mental illness; it has a close relationship with physical and behavioral health. Evidence from various parts of the world over several decades demonstrates that adverse economic conditions are associated with poor mental health. Poverty has devastating effects on the health and mental well-being of people worldwide. Promoting mental health requires comprehensive knowledge of determinants; factors that play a role in mental health include individual, social, and environmental factors. Environmental factors include: adequate housing; household and public safety; access to quality education for all; fair working conditions; and legal recognition preventing discrimination. Social factors include the benefits of emotional attachments; access to secure relationships accompanied by affection and trust; and the ability to communicate, negotiate, and participate. Individual factors include: the capacity to regulate emotions and thoughts; learning from experience; conflict management; and tolerance of life's unpredictability(7).

Physical health is the most important aspect of life, influenced by numerous factors, including internal and external factors. Internal factors are those arising from the individual or affected by the person's bodily functions; if the body's organs perform their functions properly, the individual is considered healthy. A person with good physical health will be able to control his or her mind(8).

Although health levels vary considerably across countries, in most societies, it can be said that health is a function of socioeconomic status, and individuals with greater economic resources are healthier than those with fewer resources. Wealthy individuals have better access to advanced medical resources, quality treatment, expensive medications, healthy nutrition, and preventive interventions compared to poor individuals; on the other hand, poor health may lead to deterioration and reduction of economic resources, and in severe cases of illness, may even lead to poverty due to high treatment costs(9).

Today, health is a priority on the development agenda of countries, and disparities in this domain among countries, as well as within countries, have become a focal point of global attention(10). To examine the health status of societies or vital processes related to health outcomes, health performance indicators can be used(11), which refer to various aspects of health promotion factors(12). These comparative indicators,

which are the result of expert work using up-to-date information from around the world, are compiled in the form of global health reports and constitute a valuable resource for health policymaking in all countries; these reports are published by reputable scientific and research institutions at the international level(10).

The Legatum Institute is one such institution, located in England, which for the first time in 2006, in collaboration with a team of Oxford University professors, began developing welfare-related indicators and defined elements that enable understanding of the overall quality of life of a country's people using an evidence-based approach; the report produced from this work formed the basis upon which the Legatum Prosperity Index, a global index, was created, showing the long-term trajectory of countries' growth and progress toward welfare and endeavoring to provide a roadmap for countries to achieve prosperity by comparing with the world to demonstrate through what methods they can move from poverty toward welfare. This institute has created a composite index for welfare by combining various factors such as wealth, economic growth, and quality of life, and annually ranks 167 countries; this index evaluates countries' performance in three main domains, 12 pillars, and 67 elements(13)(Table 1).

[Table 1: Domains, Pillars, and Elements of the 2023 Legatum Prosperity Index]

Row	Domains	Pillars	Elements
1	**Inclusive Societies**	**Safety and Security**	1-War and Civil Conflict 2- Terrorism 3- Politically Related Terror and Violence 4- Violent Crime 5- Property Crime
		Personal Freedom	1- Agency 2- Freedom of Assembly and Association 3- Freedom of Speech and Access to Information 4- Absence of Legal Discrimination
		Governance	1-Executive Constraints 2- Political Accountability 3- Rule of Law 4- Government Integrity 5- Government Effectiveness 6- Regulatory Quality 7- Institutional Trust
		Social Capital	1-Personal and Family Relationships 2- Social Networks 3- Interpersonal Trust 4- Social Tolerance 5- Civic and Social Participation
2	**Open Economies**	**Investment Environment**	1-Property Rights 2- Investor Protection 3- Contract Enforcement 4- Financing Ecosystem 5- Restrictions on International Investment
		Enterprise Conditions	1-Domestic Market Contestability 2- Price Distortions 3- Environment for Business Creation 4- Burden of Regulation 5- Labour Market Flexibility
		Infrastructure and Market Access	1-Communications 2- Energy 3- Water 4- Transport 5- Border Administration 6- Open Market Scale 7- Import Tariff Barriers 8- Market Distortions
		Economic Quality	1-Fiscal Sustainability 2- Macroeconomic Stability 3- Productivity and Competitiveness 4- Dynamism 5- Labour Force Engagement
3	**Empowered People**	**Living Conditions**	1-Material Resources 2- Nutrition 3- Basic Services 4- Shelter 5- Connectedness 6- Protection from Harm
		Health	1-Behavioural Risk Factors 2- Preventative Interventions 3- Care Systems 4- Mental Health 5- Physical Health 6- Longevity
		Education	1-Pre-Primary Education 2- Primary Education 3- Secondary Education 4- Tertiary Education 5- Adult Skills
		Natural Environment	1-Emissions 2- Exposure to Air Pollution 3- Forest, Land and Soil 4- Freshwater 5- Oceans 6- Preservation Efforts

Welfare in every society comprises various dimensions and pillars, one of the important dimensions of which in societies is the individual's sense of health, security, and happiness(14). Since all governments bear the responsibility of protecting the health and welfare of their populations(15), Legatum seeks to measure indicators related to health status and the extent of people's access to essential services for maintaining health and determining countries' positions(5). By examining countries' health status positions according to Legatum, it can be observed that Singapore has achieved the highest rank among all countries, and in examining the constituent elements of health, it is noteworthy that two elements—mental and physical health—unlike other health elements, have shown a declining trend among all countries worldwide during the 2013–2023 period(5). Given the close relationship between physical and mental health and their direct and indirect effects on each other(6), we were motivated to compare the mental and physical health status in Singapore,

as the top-ranked country in the health index, with Iran in this research; because the Legatum Prosperity Index clearly demonstrates that a real and quantifiable structural and functional gap exists between the rankings of these two countries. This numerical distance shortens vastly different perspectives in health system investment, infrastructure, quality of preventive and treatment services, and efficiency of health financing systems. Our objective in this study was to rely on Legatum's definition, which measures the health pillar by assessing population healthiness and their access to healthcare, to identify strengths and deficiencies such as infrastructure shortages, human resource management, and prevention policies in a targeted manner by comparing Iran with Singapore, and to guide policymakers toward selecting proven solutions for improving health outcomes, reducing access inequalities, and enhancing cost-efficiency in the health system.

In this regard, this study addresses the following questions:

1. 1. What is the status of mental and physical health in Iran and Singapore according to Legatum Prosperity Index data, and what significant differences exist between them?
2. 2. What similarities and differences do the mental and physical health indicators of Iran and Singapore exhibit?
3. 3. Which policy, structural, or institutional factors have enabled Singapore to achieve a higher ranking in the Legatum health pillar?
4. 4. What lessons and recommendations do the comparative findings provide for improving mental and physical health in Iran?

Methods

This research was conducted as a descriptive-comparative study in 2024. This study employed the Bereday method in four stages (Description, Interpretation, Juxtaposition, and Comparison)(16)to compare the mental and physical health status of the two countries, Singapore and Iran. In the description stage, necessary data regarding the physical and mental health of the two countries were collected and prepared for examination and critique in the subsequent stage. In the interpretation stage, the collected data from the first stage were examined and analyzed. In the juxtaposition stage, the prepared data were classified and placed alongside each other to create a framework for comparing similarities and differences. Finally, in the comparison stage, the classified data were compared in terms of similarities and differences.

The selection of Singapore was based on the ranking of one of the most reputable institutions examining countries' welfare levels. The comparative method was employed to conduct this study. In this research, initially, some primary information related to health indicators was gathered by referring to the websites of health-related organizations in the aforementioned countries, as well as the World Health Organization, and subsequently, an attempt was made to present information regarding the health indicators of these two countries by comparing their rankings in each indicator.

In all stages of conducting this research, ethical considerations, including commitment to the interpretation and presentation of information without any bias, were observed.

Findings

According to the data from the latest Legatum Prosperity Index report in 2023, the rank and score of mental health in Iran and Singapore in terms of the indicators of emotional health, depressive disorders, and suicide are presented in Table 2.

[Table 2: Global Rankings of Iran and Singapore in Mental Health Indicators(17)]

country	Overall rating	health rating	Mental Health Element Index Rank		
			Emotional wellbeing	Depressive Disorders	Suicide
Iran	126	58	142	151	33
Singapore	17	1	17	4	99

The mental health element indicates the level and burden of mental illness on the living population. This element can have a significant impact on welfare and individuals' ability to participate effectively in the labor market. Mental health in Iran and Singapore was compared in terms of the indicators of emotional health, depressive disorders, and suicide(5). As observed in Table 2, Iran holds a lower position than Singapore in the emotional health indicator.

What Legatum measures regarding emotional health uses data from the Gallup Institute concerning people's positive and negative experience indices, which provide leaders with information about their communities' health that cannot be obtained solely through economic measures; most country leaders focus on measures such as gross domestic product and unemployment, and few pay attention to their people's feelings. Gallup has produced global statistics for welfare and happiness since 2006, and these metrics are entirely complementary to objective human development indicators. Positive experience indices include good rest, being treated with respect, smiling or laughing, learning or doing something interesting, and experiencing pleasure; negative experience indices include pain, worry, sadness, stress, and anger, which are strongly related to individuals' perceptions of living standards, personal freedoms, and presence in social networks(18).

Furthermore, the table results indicate that Singapore holds a more favorable position than Iran regarding the depressive disorders indicator. Depression is a mood disorder that causes persistent feelings of sadness and loss of interest. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) of the American Psychiatric Association classifies depressive disorders as disruptive mood dysregulation disorders, which include major depressive disorder; persistent depressive disorder (dysthymia); premenstrual dysphoric disorder; and depressive disorder due to another medical condition. Common features of all depressive disorders include sadness, emptiness, or irritable mood accompanied by physical and cognitive changes that significantly affect the individual's functional capacity(19).

According to the results of the Global Burden of Disease (GBD) study, the years of life lost due to depressive disorders in Iran in 2021 per 100,000 population is 1104.93, whereas this indicator in Singapore equals 434.68 years per 100,000 population(20).

Suicide is another item examined in mental health, in which regard Iran holds a more favorable position than Singapore.

According to the World Health Organization definition, suicide means intentionally ending one's life. From an epidemiological perspective, suicide is one of the main causes of premature death that is preventable. Annually, 800,000 people worldwide lose their lives due to suicide, equivalent to one death every 40 seconds. For every suicide death, approximately 20 suicide attempts occur. All regions of the world, including developed and developing countries, are equally affected by this phenomenon(21).

In examining the World Health Organization's suicide indicator, suicide mortality globally in 2021 per 100,000 population was 9.2 persons, and this indicator for Iran was 4.1 persons, whereas for Singapore it was recorded as 8.1, which is even higher than the global indicator(22).

Another element examined in this study is physical health, which indicates the level and burden of physical illness on the living population. This element can have a significant impact on welfare and the individual's ability to participate effectively in the labor market(5).

According to the data from the latest Legatum Prosperity Index report in 2023, the rank and score of physical health in Iran and Singapore in terms of the indicators of physical pain, health problems, infectious diseases, non-communicable diseases, and blood pressure are presented in Table 3.

[Table 3: Global Rankings of Iran and Singapore in Physical Health Indicators(17)]

country	Overall rating	health rating	Physical Health Element Index Ranking				
			physical pain	Health Problems	Communicable Diseases	Non-Communicable Diseases	Blood Pressure
Iran	126	58	104	76	60	155	29
Singapore	17	1	3	11	7	14	5

As observed in Table 3, in examining the physical pain indicator, Singapore holds a more favorable position than Iran.

Pain is an unpleasant reality and the most common reason that causes people to seek medical care. On the other hand, it imposes substantial costs on quality of life, not only for the individual suffering from pain but also for families, caregivers, and communities(23).

According to Gallup Institute data, 19 percent of individuals in Singapore have experienced physical pain, whereas this indicator in Iran was 33 percent; the global average of this indicator also shows an upward trend(18).

According to Table 3, regarding the health problems indicator (meaning problems that prevent individuals from performing activities that their peers do), Singapore holds a more favorable position than Iran(24).

According to Gallup Institute data, Singapore ranks 11th in terms of experiencing health problems, whereas Iran's rank in this indicator was 76th(5).

According to Table 3, another physical health indicator relates to infectious diseases, according to which Singapore holds a more favorable position than Iran per the Legatum Index.

Prevention and control of infectious diseases is one of the most important components of primary healthcare systems, which plays a significant role in people's health(25).

According to the results of the Global Burden of Disease (GBD) study, the years of life lost due to infectious diseases in Iran in 2021 per 100,000 population is 6431.74, whereas this indicator in Singapore equals 1737.86 years per 100,000 population(20).

According to Table 3, regarding the non-communicable diseases indicator, Singapore holds a more favorable position than Iran in the Legatum report.

The main types of non-communicable diseases are cardiovascular diseases (such as heart attacks and strokes), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma), and diabetes. Non-communicable diseases disproportionately affect people in low- and middle-income countries, such that more than three-quarters of global non-communicable disease deaths (31.4 million) occur in these countries(26).

According to the results of the Global Burden of Disease (GBD) study, the years of life lost due to non-communicable diseases in Iran in 2021 per 100,000 population is 18666.08, whereas this indicator in Singapore equals 15603.3 years per 100,000 population(20).

As observed in Table 3, in examining the blood pressure indicator, Singapore holds a more favorable position than Iran.

High blood pressure is a serious medical condition that can increase the risk of heart, brain, kidney, and other diseases. It is one of the main causes of premature death worldwide, such that 1 in 4 men and 1 in 5 women (more than one billion people) suffer from this disease. The burden of high blood pressure is disproportionately greater in low- and middle-income countries, with two-thirds of cases observed in these countries, mainly due to increasing risk factors in those populations(27).

In examining the World Health Organization's elevated blood pressure indicator, mortality due to this indicator in Iran in 2019 per 100,000 population was 20 persons, whereas this indicator for Singapore was recorded as 12.6(22).

Discussion

This research was conducted to compare the mental and physical health status in Iran with that in Singapore. Mental health includes the indicators of emotional health, depressive disorders, and suicide, and the results indicate that Iran holds a lower position than Singapore in the emotional health indicator(5). A study showed that culture can affect the desirability of positive and negative affect, and the most effective strategy for a

good life lies in the interaction between positive and negative emotions. The differences between positive and negative emotions across cultures can also result from socialization. In individualistic cultures, optimizing positive emotions is more acceptable than in collectivist cultures. In collectivist cultures, displaying high positive emotions is not only unacceptable but may be punished through shame and blame by others and society. In Iran, regarding positive and negative emotions, culture can selectively affect the components of emotional health(28). In Iran, two measures have been conceptualized for emotional health: first, individual evaluation and satisfaction with life, and second, pleasant affect; based on these measures, a structure with 13 components has been formed: life preferences, satisfaction with life domains, perception of justice, evaluation of societal conditions, perception of living conditions, feeling of freedom, feeling of security, evaluation of lawfulness, tendency toward order, evaluation of citizenship realization, feeling of happiness, feeling of joy, and feeling of belonging and national pride(29).

In contrast, Singaporeans identify four psychological resilience factors including belief in flexibility, emotional self-regulation, coping flexibility, and religiosity as effective in relation to positive and negative emotions(30), and for emotional health, they acknowledge a single structure with five meaningful dimensions reflecting their perception of welfare: peacefulness and contentment, goal-setting for continuous self-growth, interdependence, realistic and logical thinking, and flexibility(31).

It can be said that in Iran, due to the dominant collectivist culture, displaying positive emotions is somewhat more difficult, and additionally, low levels of life satisfaction are among the factors involved in this indicator's score.

Another mental health indicator is depressive disorders, which, upon examination, was found to hold a more favorable position in Singapore than in Iran(5). Depression is a multifactorial disease, meaning it may be caused by a wide range of factors, including genetics, hormonal, biological, and also the influence of family and other sociocultural factors(32). The prevalence of major depressive disorder is influenced by numerous factors, such as culture, socioeconomic status, age, gender, marital status, physical health status, occupation, and other factors, and has a higher prevalence in countries with medium human development index levels, including many Asian countries(33). In Iran, certainly, the presence of some of these factors in a pronounced manner, such as economic and political crises, has a greater impact(34). Urbanization and Iran's economic growth in recent decades, and the impact of transformation in Iranian women's roles, can affect the prevalence of major depression(35). The high burden of depression in Iran and the need for treatment and care by a diverse group of healthcare specialists has prompted the Ministry of Health to implement a set of programs for promoting mental health over the past three decades, facing challenges related to promoting coverage and quality of care including mental health literacy and pessimism, inequity, strengthening mental health at primary care level, and guidelines and standards for mental health care(36).

In Singapore, major depressive disorder is the most prevalent disorder among youth and has a significant treatment gap. Therefore, understanding how the illness is experienced among adults is important for interventions at early stages of disease onset. It is usually assumed that non-Western communities have more spiritual/traditional narratives of mental illness; a multi-ethnic community such as Singapore may offer culturally distinct narratives of illness; Singaporeans typically use both allopathic and traditional types of treatment simultaneously in a diverse medical system(37). According to the results of one study, depression

in adolescents was more influenced by interaction with peers and mass media than their interaction with adults, such as parents and teachers, indicating that public mental health education would be beneficial because adolescents tend to engage with their friends' mental health problems that require support, and immersion in these problems can be stressful(38).

In examining the suicide indicator, Iran holds a more favorable position than Singapore(5). Meta-analysis results indicate that family conflicts are an important factor associated with suicide in Iran, and social factors play a noticeable role in suicide rates in Iran(39). The most common reasons for suicide attempts are family problems, emotional/relationship problems, and employment/education problems(40), and the predominant age of suicide in Iran was 20 years, whereas in other countries, suicide occurs at older ages. This may be due to differences like problems and social tensions between societies, namely marriage problems, being single, addiction, unemployment, educational problems, marital disputes, and divorce(41). Studies have shown that repetition of suicide attempts is higher in individuals with a history of suicide attempts, and healthcare services provided after suicide attempts and duration of hospital stay are associated with repetition of suicide attempts; therefore, with increased services and length of hospitalization and therapeutic interventions, suicide attempts will decrease, indicating that individuals need to receive services and attention in this domain. Although the prevalence of suicide attempts in Iran is lower than the global average, it has an increasing trend, and suicide prevention approaches, such as organizations supporting women and youth, improving economic support and poverty alleviation, and the availability of services and mental health education in Iran, should receive greater attention(42). On the other hand, the stigma of suicide in Iran's religious context and the risk of subsequent legal problems for their families (for example, burial of the deceased) may mean that suicide is less reported in the Islamic Republic of Iran(40).

In Singapore, suicide is usually more common among younger, unmarried, and healthy individuals, and major reasons include school and relationship problems in youth, financial and marital problems in adults, and physical illnesses in the elderly. Negative emotions of despair and agony were the most common causes, with other causes including emptiness, feelings of guilt and shame, hopelessness, and anger, indicating a combination of social, psychological, and physical factors that drive individuals toward suicide, awareness of which is important in prevention, assessment, and management of suicide(43). It can be said that in Singapore, suicide rates are associated with unemployment, requiring increased public education, access to counseling, and anti-suicide campaigns because individuals face greater stress during transition toward assuming social roles and responsibilities with increasing age, and workplace programs, increased access to counseling services such as establishing 24-hour crisis telephone lines and social service centers, and improving stress control through teaching problem-solving skills to at-risk individuals, effective communication, relationship management, and emotion regulation may help reduce suicide rates; furthermore, for suicide prevention, cultural and religious factors in a multi-ethnic country such as Singapore must be considered(44).

In examining the physical pain and health problems indicators, Singapore holds a more favorable position than Iran(5).

Upon examination, it appears that Iran's population structure has changed significantly in recent decades; currently, Iran's population growth has been accompanied by declining fertility rates in 2019, followed by

increasing population aging with increased disease burden and healthcare costs, which will confront Iran's health system with health problems(45). According to the latest World Health Organization reports, cardiovascular diseases, road traffic accidents and injuries, strokes, and stomach cancer are the five main factors of disease burden and mortality in Iran from 2000 to 2021(46).

In the past decade in Singapore, total health expenditures were 4.47% of gross domestic product in 2016, with the government's share being approximately one-third; Singapore has good rankings in international comparisons of health indicators and systems, but nevertheless, from 2011 to 2014, public concerns arose regarding shortages of hospital beds and medium- and long-term care services; to address these challenges, Singapore's Ministry of Health implemented a comprehensive set of reforms in 2012 under its Healthcare 2020 Masterplan; these reforms significantly increased capacity of public hospital beds and medium- and long-term community services, expanded subsidies for primary and long-term care, and introduced a series of financial reforms in healthcare to strengthen financial support and insurance coverage, but nevertheless, it was determined that these measures alone cannot bring about fundamental systemic changes in the long term; instead, the system requires more fundamental changes in its approach; therefore, Singapore's Ministry of Health since 2016 has summarized the required changes under the title "Three Beyonds," which include: beyond healthcare toward health, beyond hospital toward community, and beyond quality toward value; another health problem in Singapore is rapid population aging (although it has younger demographic characteristics compared to other high-income countries), which has increased healthcare utilization and per capita healthcare costs among higher age groups, with projections that 25% of Singapore residents will be over 65 years of age by 2030, and furthermore, given that non-communicable diseases become more prevalent with increasing age, demographic changes will be accompanied by further increases in non-communicable diseases; for example, diabetes prevalence among Singapore's population aged 18 to 69 years in 2017 was 6.8%, which with the trend of increasing age and population aging, is projected to increase from 7.3% in 1990 to 15% for diabetes, 14.2% for cancers, 13.4% for musculoskeletal disorders, and 12.6% for mental health disorders by 2050(47). According to the World Health Organization report in 2021, heart attacks, lower respiratory tract infections, lung cancer, stroke, and colon and rectum cancer are the five main causes of mortality in Singapore's population from 2000 to 2021(48).

In examining the infectious diseases indicator, Singapore holds a more favorable position than Iran(5).

Prevention and control of infectious diseases is one of the most important components of primary healthcare systems that plays a significant role in people's health(25). The results of Shirani and colleagues' study examining clinical and paraclinical parameters related to disease severity and mortality in influenza patients in one of Iran's provinces showed that influenza mortality is affected by factors such as comorbidities, age, and whether vaccination has been performed or not. This study also showed that vaccination reduces mortality, especially in high-risk groups(49).

Mohammad Ebrahimi and colleagues' study showed that high-risk areas for influenza are mainly in northern Iran and specifically in colder months of the year, with the cumulative incidence of this disease being 11.44 percent per 100,000 cases(50).

Influenza surveillance in Singapore plays an important role in preventing the spread of this disease. Aidan Liangjian and colleagues' cohort study shows that 30.6% of influenza-like illnesses are caused by influenza A(H1N1), with the hospitalization rate of patients with this influenza type in Singapore being 29.6% annually(51).

Official statistics of COVID-19 cases until April 11, 2020, were 68,192 persons, reported deaths until that date were 4,232 persons, and statistics predicting COVID-19 deaths were 13,450 persons(52). In Gohari and colleagues' 2022 study, 136,166 COVID-19 deaths were reported in Iran(53).

The results of Madar and colleagues' 2023 study in Singapore showed that Singapore, due to effective health measures such as quarantine, contact tracing, extensive vaccination, and strict movement restrictions, prevented widespread mortality, such that among more than 910,000 confirmed cases, 0.047% resulted in death(54). The preventive and control approach to COVID-19 by the Singapore government, including mask distribution among the public, public awareness sessions, and public participation in controlling this virus outbreak, was very important(55).

In examining the non-communicable diseases indicator, Singapore holds a more favorable position than Iran(5).

Non-communicable diseases encompass approximately two-thirds of global deaths, and these diseases are seen more in low- to middle-income and poor countries with high vulnerability(56).

Nearly 80% of deaths in Iran, despite the decline of infectious diseases, are caused by non-communicable diseases(57). The most important non-communicable diseases are cardiovascular diseases (CVD), diabetes (DM), high blood pressure (HTN), cancer, and chronic respiratory diseases, resulting from physical inactivity, unhealthy diet, alcohol consumption, and tobacco use; currently, Iran's health system has focused its efforts on prevention pathways for non-communicable diseases and better management of these diseases, and is adapting to these changes(58).

Based on the results of Safarpour and colleagues' 2022 study, the most common non-communicable diseases were kidney stones 18.63%, high blood pressure 18.63%, diabetes 15.67%, fatty liver 15.3%, and thyroid disorders 12.33%, respectively(59).

In Singapore, cardiovascular diseases, cancers, diabetes, and chronic respiratory diseases are among the non-communicable diseases that lead to mortality; according to statistics published by Singapore's Ministry of Health and the World Health Organization (WHO), cardiovascular diseases account for 29% of all deaths and are among the most important causes of mortality in Singapore. Cancers constitute approximately 30% of all deaths in Singapore, with the most common being lung cancer, colon cancer, and breast cancer, respectively. Approximately 1% of Singapore's population suffers from diabetes; diabetes is one of the common diseases in Singapore. Chronic respiratory diseases such as chronic obstructive pulmonary disease (COPD) and asthma constitute 3% of deaths. According to the World Health Organization estimates, non-communicable diseases account for 74% of all deaths. Singapore's Ministry of Health has considered solutions for prevention and control of these diseases such as health promotion programs including smoking cessation, physical activity, healthy lifestyle, healthy nutrition, disease management at the macro level,

telemedicine, and community participation; and because Singapore's population is aging, the prevalence of non-communicable diseases is also increasing, and community participation increases awareness and facilitates and changes in individuals' lifestyles(60).

In examining the blood pressure indicator, Singapore holds a more favorable position than Iran(5).

The prevalence of high blood pressure in Iran and Singapore shows considerable differences. In Iran, according to recent studies, approximately 30% of adults suffer from high blood pressure. This statistic is higher in men and elderly individuals. The prevalence percentage differs between rural and urban areas. Inadequate access to medical care and unhealthy lifestyles are among the important factors contributing to increased high blood pressure prevalence in Iran. In Singapore, according to 2021–2022 data, high blood pressure prevalence has increased to approximately 35.5%. Men are affected more (41%) than women (30.2%). Blood pressure prevalence increases sharply with age, such that in individuals over 70 years, this rate reaches 74.9%. Overall in Iran, 80.2% of patients with high blood pressure are under treatment, and 39.1% are under control(61, 62). The prevalence of high blood pressure among Singapore residents in the 2021–2022 period in the 18–74 age group was 37%(63), among which 35.7% of individuals with known high blood pressure are under control. Therefore, although prevalence rates in Iran and Singapore are close to each other, diagnosis and control of blood pressure in Singapore are in better condition; on the other hand, in Iran, a large portion of patients are unaware of their disease, and blood pressure is not properly controlled. These differences can be related to factors such as the health system, public awareness, and lifestyle(61, 62).

Conclusion

Improving physical and mental health status in Iran requires a comprehensive and coordinated approach that includes comprehensive, long-term planning to improve access to health services, enhance public awareness, promote a healthy lifestyle, and improve international relations. Today, Iranian society faces serious challenges in various fields, including the health domain, and to address these challenges, health and medical infrastructure must be strengthened, and educational programs must be implemented to increase awareness regarding the importance of mental and physical health. Ultimately, cooperation between governmental and non-governmental institutions and encouraging community participation in promoting physical and mental health can lead to overall improvement of welfare and health in Iranian society. Among the limitations of this study, the unavailability of more updated statistics for some indicators can be mentioned. Examination and study of other welfare elements or other health-related indicators is recommended.

Declarations

Ethics approval and consent to participate: Not applicable. This study was not a clinical trial.

Consent for publication: Not applicable.

Competing interests: The authors declare that they have no competing interests.

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Data availability: The data used in this study were obtained from publicly available sources, including the Legatum Prosperity Index 2023 report (https://index.prosperity.com), the World Health Organization Global Health Estimates (https://www.who.int/data/global-health-estimates), and the Global Burden of Disease Study 2021 (https://vizhub.healthdata.org/gbd-results/). All data are publicly accessible at the respective URLs. No new data were generated in this study.

Author contributions: M.B. and F.T. conceived and designed the study. M.B., F.T., M.A., S.S., A.M., J.M.F., and R.F. collected and analyzed the data. M.B. and F.T. wrote the main manuscript text. M.A. and S.S. prepared Tables 1–3. A.M., J.M.F., and R.F. reviewed and edited the manuscript. All authors read and approved the final manuscript.

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