



RECREATIONAL SPORTS STRATEGIES FOR THE DEPRESSION PROBLEMS OF ELDERLY IN
GUANGDONG



A Thesis Submitted in Partial Fulfillment of the Requirements
for Doctor of Philosophy RECREATION TOURISM AND SPORT MANAGEMENT

Department of Education Foundations

Silpakorn University

Academic Year 2024

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By

Miss Dongling CHEN

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Title Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong

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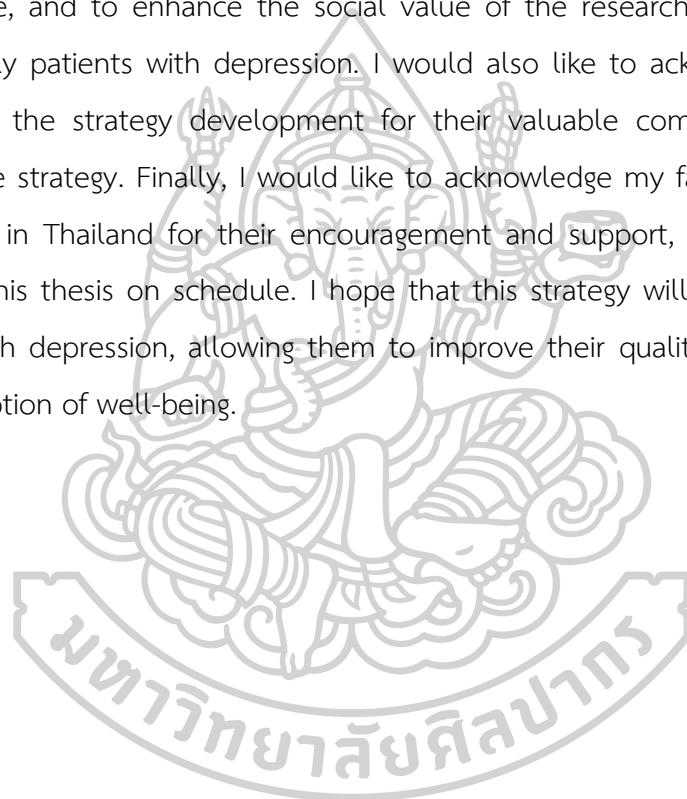
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Miss Dongling CHEN : Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong Thesis advisor : Assistant Professor Wanwisa Bungmark, Ph.D.

The development of recreational sports strategies for the depression problems of elderly in Guangdong to achieve the alleviation of depression symptoms. The research purpose: (1) To study the theory of recreational sports and current situation of the symptoms of depression in elderly people in Guangdong. (2) To develop recreational sports strategies for the depression problems of elderly in Guangdong. (3) To validate the feasibility of recreational sports strategies for the depression problems of elderly in Guangdong. The research methodology is Research and Development (R&D). The process of this study divided into four parts: R1, 84 elderly with depression answers the questionnaire and 11 Key Informant was interviewed and analyzed by SWOT. D1, create recreational sport strategy by TOWs analysis. R2, connoisseurship by 9 experts and validate the feasibility, and D2, revised the strategies. Results as shows: the current situation of elderly depression was low level of education, having three or more children, farmer and Self-employed, and large group of them rely on national health insurance. Researchers developed FVIPT strategies include and 5 components: Recreation Sports Financial Subsidies, Recreation Sports Venues, Recreation Sports Instructors, Recreation Sports Programs, Recreation Sports Time. All strategies were found high feasibilities (Mean $4.48 \pm S.D.0.50$) and the highest feasibilities strategy is Strategy 4 Recreation Sports Programs (Mean $4.86 \pm S.D.0.38$) Conclusion: This study developed FVIPT recreational sports strategies. The implemental of strategy concerned with Financial, Venues, Instructors, Programs and Time could alleviate the symptoms of depression in elderly people in Mao Ming, Guang Dong. Strategy 1 (Recreation Sports Financial Subsidies): Establishment of a subsidy system that combines multiple sources of funding by multiple payers. Strategy 2 (Recreation Sports Venue): Maintain, renovate, upgrade, and construct recreational and sports venues properly. Strategy 3 (Recreation Sports Instructors): Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression. Strategy 4 (Recreation Sports Programs): Promote the heritage and innovation of recreational sports programs. Strategy 5 (Recreation Sports Time): Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression.

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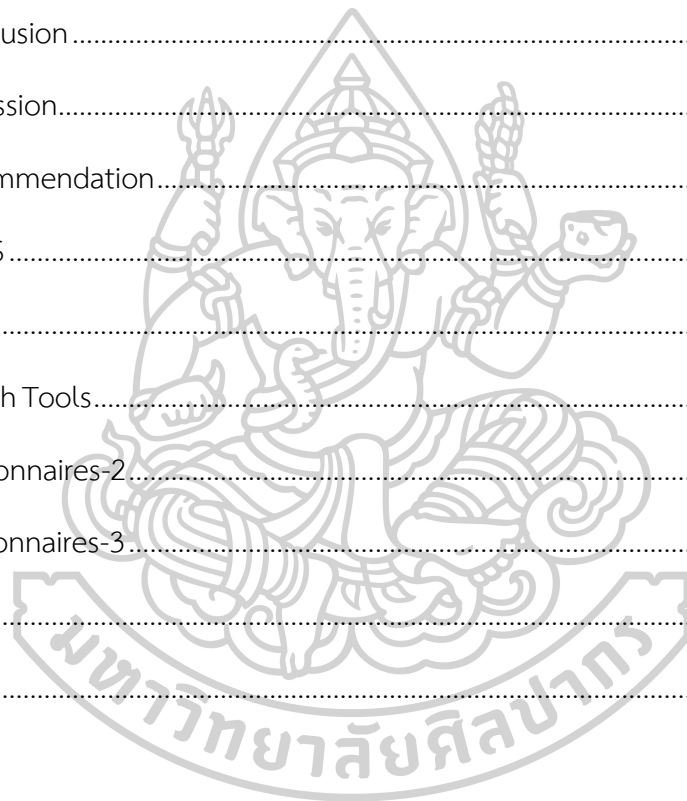
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Chapter 1

Introduction

1.1 Introduction

1.1.1 Depression is a common mental disorder characterized by persistent sadness and a lack of interest or pleasure in previously rewarding or enjoyable activities. It can lead to a range of emotional and physical problems and decrease a person's ability to function at work and home.

Globally, 5% of adults suffer from depression. (World Health Organization, 2023) Depression is a leading cause of disability worldwide and contributes significantly to the global burden of disease.

Elderly depressions (aged 60+) are at increased risk of depression due to chronic health conditions, social isolation, and bereavement. However, depression is not a normal part of aging and is often underdiagnosed and undertreated in this population. Approximately 7% of elderly depression experience major depressive disorder (MDD). Over 20% of Elderly depression in long-term care settings show depressive symptoms. (World Health Organization, 2023)

1.1.2 Depression has put enormous pressure on China's public healthcare policy. Since 2010, depression has become the second leading cause of healthy life lost in China. Both globally and in China, depression has the highest burden of disease among psychiatric disorders, ranking 13th among all diseases globally and 11th in China. The prevalence of depression in China is as high as 6.8% (with women more likely than men). Only 0.5% of people with depression receive appropriate treatment, as the majority of them do not seek help from professional organizations. In contrast to the huge demand for mental health care, there is a shortage of psychiatrists in China. Currently, there are about 40,000 psychiatrists in China, but more than 60,000 are needed to meet the public's needs. (National Health Commission of China, 2022)

1.1.3 There is a large number of elderly people in Guangdong Province, China who suffer from depression disorders. China is a populous country, as well as a country with a large elderly population, and the number of people suffering from elderly depression disorder is also large.

By the end of 2021, the total population of China was 1411.75 million, including 280.04 million people aged 60 and above, accounting for 19.8% of the national population and growing at an annual growth rate of 0.9%. (National Bureau of Statistics of China, 2022) At the same time, the detection rate of depression risk among Chinese people is 10.6%, among which the detection rate of depression risk among elderly people over 60 years old is 16%, with a total of 44.81 million people. (Chinese Academy of Sciences, 2022)

As a populous province, Guangdong Province also faces such difficulties. By the end of 2021, Guangdong Province had a total population of 126.03 million, of which 15.5651 million were elderly people aged 60 and above, accounting for 12.35%. It is expected that by 2030, the proportion of elderly people in the province will exceed 20%. (National Bureau of Statistics of China, 2022) At the same time, the detection rate of depression risk in the province is 10.6%, among which the detection rate of depression risk for elderly people over 60 years old is 9.93%, with a total of 1.5456 million people. (Chinese Academy of Sciences, 2022)

1.1.4 Elderly depression has a serious impact on and takes a toll on the physical and mental health of the elderly.

Elderly depression is a mental disorder that first develops after the age of 60 and is characterized by a persistent depressive state of mind as its main clinical manifestation. Mood disorders are not somatic or organic brain diseases. Depression is a negative, unpleasant emotional experience characterized by low affect, crying, sadness, disappointment, reduced activity, and delayed thinking and cognitive function. It generally has a long course, with a tendency to remission and relapse, and some patients have a poor prognosis and can develop refractory depression, so elderly depression has a serious impact on the physical and mental health of the

elderly. (National Institute for Health and Care Excellence of China, 2022)

Characteristics of elderly depression:

(1) Hypochondriasis: Manifested by somatic symptoms with predominantly autonomic symptoms. About 1/3 of geriatric patients have hypochondriasis as the first symptom of depression.

(2) Agitation: It is easy to be anxious and agitated.

(3) Insidious: Weakness and sleep disorders are common symptoms.

(4) Sluggishness: Usually lack of movement and slowness, and in severe cases, indifference to external movements.

(5) Delusional: Among the delusional states, suspicious delusion and nihilistic delusion are the most typical, followed by victimization delusion, relationship delusion, poverty delusion, and sin delusion.

(6) Depressive pseudodementia: That is reversible cognitive dysfunction.

(7) Suicidal ideation: The risk of suicide in elderly depression is much greater than in other age groups.

(8) Seasonality: Usually winter depressive episodes, spring or summer remission.

(9) Other: May be manifested with an acute psychotic state (impaired consciousness). A true acute psychotic state can occur in elderly depressed patients due to malnutrition, vitamin deficiency, and dehydration caused by loss of appetite. (LI Fang et al., 2022)

The comprehensive above theory fully illustrates that elderly depression causes significant physical and mental impact and damage to the elderly.

1.1.5 Recreational sports are an effective customized medicine for treating depression in the elderly.

Elderly depression is the most common mental disorder among the elderly, characterized by low mood or lack of interest or pleasure, and can be accompanied by varying degrees of cognitive and behavioral changes.

Elderly depression is specific in its symptoms, specifically in the following ten areas:

1. Loss of interest, no sense of pleasure.
2. Loss of energy, lack of spirit, fatigue, and weakness.
3. Reduced speech and behavior, good at being alone, unwilling to socialize with others.
4. Decreased self-evaluation, self-blame, and guilt.
5. Recurring thoughts of wanting to die or suicidal tendencies, according to research, more than 10% of the elderly suffering from depression will take suicidal behavior.
6. Pessimism and despair about the future, and misanthropy.
7. Self-consciousness of the seriousness of the condition, there is a tendency of suspicion, according to the survey, 60% of the elderly patients with depression will exhibit suspicion of disease symptoms.
8. Poor sleep, insomnia, and early awakening.
9. Loss of appetite or significant weight loss.
10. Symptoms of significant memory loss and slow reaction, about 80% of elderly patients will experience memory loss. (Zhao Lijun, 2023)

Comparison between the normal elderly and the depression elderly.

1. The desire for the practice of interest is still intact and produces a sense of pleasure upon realization.
2. By age, the energy of the elderly is slightly reduced, but not to the state of mental depression and fatigue.
3. Speech and behavior are normal, can be alone, also willing to socialize with others, social craving has not changed much.
4. Normal self-evaluation, no sense of self-blame or guilt for no reason.
5. No thoughts of death or suicidal tendencies.
6. Predictions of the future are positive and optimistically accepted, and there is no anhedonia.

7. Remind them about their existing diseases, do not feel the seriousness of the disease, and there is no tendency to suspect of disease.

8. Sleep is normal, there is no insomnia, and early awakening is different from usual.

9. Normal appetite and food intake, and no significant weight loss.

10. There is no symptom of significant memory loss or slow reaction time.

(Zhao Lijun, 2023)

The main treatment methods for depression in the elderly include medication, psychological therapy, and physical therapy. However, due to the limitations of treatment methods, treatment compliance is poor. In addition to the physical functions and lifestyle characteristics of the elderly, recreational sports therapy, as the most recommended treatment method among multiple guidelines, has become a hot topic in the treatment of depression in the elderly due to its advantages of high compliance, strong operability, and few side effects. (National Institute for Health and Care Excellence of China, 2022)

In recent years, studies have found that recreational sports have a positive impact on relieving symptoms of depression in elderly depression.

Recreational sports' relief of depression symptoms.

(1) It is conducive to the release of chemicals in the body.

(2) Facilitates the increase of social interaction opportunities for the elderly.

(3) Enhances the body image and self-esteem of elderly depression.

(4) Facilitates distraction of negative attention and reduction of stress in elderly depression with depression.

Recreational sports have the following basic meanings:

(1) The practical form of recreational sports is physical activity. The basic forms of recreational sports are: Youth recreational sports in schools, social recreational sports

mainly for young and middle-aged people, and recreational sports mainly for the elderly, and with the advancement of medicine, therapeutic recreational sports have emerged in modern society. The types are diverse.

(2) The direct purpose of recreational sports is to promote the harmony and comprehensive development of the human body and mind, which is the essential function of recreational sports.

(3) The indirect purpose of recreational sports is to promote the development of human society, which leads to a variety of derived functions of recreational sports such as social, political, economic, cultural, and ecological.

(4) The development of recreational sports is based on social development, and the interaction between sports and society is the basic motive of the development and change of recreational sports. In different historical periods and different social contexts, recreational sports will show different characteristics.

(5) Recreational sports are a special kind of therapeutic medicine, especially in the treatment of mental health disorders. (Yang Hua, 2022)

Recreational sports, as a non-pharmacological treatment modality, have a positive effect on alleviating the symptoms of depression. Recreational sports release chemicals in the body, increase opportunities for social interaction, and enhance body image and self-esteem while distracting attention and reducing stress. Recreational sports are indeed a customized remedy for depression in the elderly depression.

Scientific strategies of recreational sports are important conditions to ensure the improvement of depression in the elderly.

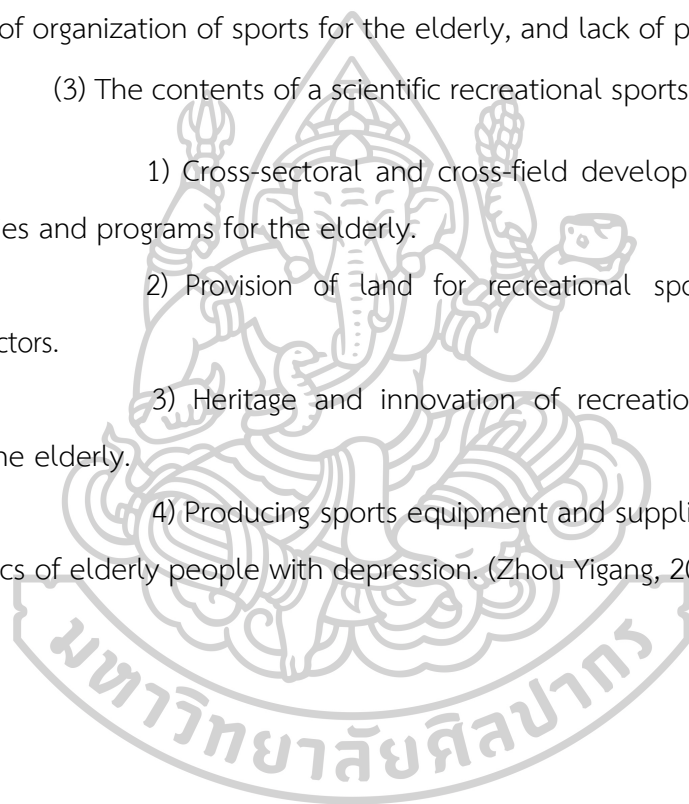
Taking Guangdong Province as an example, in terms of formulating strategies for recreational sports to improve depression among the elderly, they should be subdivided and formulated in the light of the economic strength of each locality, its geographical location, customs and habits, and the age structure of the elderly, so as to make them scientific, reasonable, sensible and feasible. Regular summaries and adjustments should also be made, and a detailed data analysis system should be set up to lay a good foundation for future improvements.

(1) The significance of the strategy: it is to improve the symptoms of depression in the elderly with the scientific recreational sports strategy, which improves the physical and mental health, quality of life, and other aspects of the elderly, and also enhances their sense of well-being.

(2) Difficulties encountered in the development of scientific recreational sports strategies: lack of funds for the development of recreational sports for the elderly, serious shortage of venues for sports activities for the elderly, too single form of organization of sports for the elderly, and lack of professional guidance.

(3) The contents of a scientific recreational sports strategy:

- 1) Cross-sectoral and cross-field development of recreational sports policies and programs for the elderly.
- 2) Provision of land for recreational sports and professional sports instructors.
- 3) Heritage and innovation of recreational sports programs suitable for the elderly.
- 4) Producing sports equipment and supplies that meet the characteristics of elderly people with depression. (Zhou Yigang, 2019)



1.2 Purpose of the study and the research questions

1.2.1 Purpose of the study

To study the theory of recreational sports and current situation of the symptoms of depression in elderly people in Guangdong.

To develop recreational sports strategies for the depression problems of elderly in Guangdong.

To validate the feasibility of recreational sports strategies for the depression problems of elderly in Guangdong.

1.2.2 Research questions

(1) What are the theories of recreational sports? What is the current situation of depression in elderly people in Guangdong?

(2) What recreational sport strategies can alleviate symptoms of depression problem among the elderly people of Guangdong?

(3) How to validate the feasibility of recreational sports strategies for the depression problems of elder in Guangdong?

1.3 Scope of the study

1.3.1 Population of the study

The subjects of this study were 90 elderly patients with depression from Maoming City, Guangdong Province, China. The reasons for choosing Maoming City were:

(1) The original Maoming City is a very livable place, and there are not many elderly depressed patients, but within the last decade, the elderly depressed patients have increased at a faster rate, forming a social burden.

(2) The economic conditions in Maoming City are poor, so most of the elderly patients with depression can only choose medication in the treatment process, and other treatment modalities (e.g., psychotherapy, physical therapy, etc.) are less often used.

(3) Also, because of the poor economic conditions, the drugs chosen to be used are lower-end drugs with relatively more side effects.

(4) Most of the elderly people in Maoming City like to work and exercise, and believe in the Chinese health theory that exercise can cure diseases.

1.3.2 Sample of the study

1.3.2.1 The sample of this study consisted of 84 elderly depressed patients were selected for a questionnaire survey using stratified random sampling methods. According to the sampling formula of Krejcie and Morgan (1970) is 73 patients. To protect losing data, researchers collected data from 84 elderly patients with depression were sampled from the elderly depressed patients who could move freely in Qianpai Town, Maoming City, Guangdong Province, China.

Questionnaires-1 (84 People)

No.	Gender	Number
1	Male	42 Persons
2	Female	42 Persons
Total		84 Persons

1.3.2.2 Key Informant of the study

(1) Interview for making strategy (11 People)

No.	Attributes Of Professionals	Number
1	Sports rehabilitation physician	1 Person
2	Psychiatrist	1 Person
3	Chinese medicine practitioner	1 Person
4	Community Health General Practitioner	1 Person
5	Staff of elderly associations	1 Person
6	Staff of elderly welfare departments	1 Person
7	Staff of community administration departments	1 Person
8	Staff of sports associations	1 Person
9	CEO of elderly enterprises	1 Person
10	Exercise instructors	1 Person
11	Family members of elderly depression patients	1 Person
Total		11 Persons

(2) Connoisseurship (9 Experts)

No.	Attributes Of Experts	Number
1	Doctor	4 Persons
2	Elderly welfare office staff	1 Person
3	Member of the association for the elderly	1 Person
4	Member of sports association	1 Person
5	Community director	1 Person
6	CEO of pension enterprise	1 Person
Total		9 Persons

(3) Interview for feasibilities strategy (12 People)

No.	Attributes Of Professionals	Number
1	Sports rehabilitation physician	1 Person
2	Psychiatrist	1 Person
3	Chinese medicine practitioner	1 Person
4	Community health general practitioner	1 Person
5	Staff of elderly associations	1 Person
6	Staff of elderly welfare departments	1 Person
7	Staff of community administration departments	1 Person
8	Staff of sports associations	1 Person
9	CEO of elderly enterprises	1 Person
10	Exercise instructors	1 Person
11	Family members of elderly depression patients	1 Person
12	Professor, faculty of Social Sciences	1 Person
Total		12 Persons

(4) Questionnaire for feasibility (14 People)

No.	Attributes Of Professionals	Number
1	Sports rehabilitation physician	1 Person
2	Psychiatrist	3 Persons
3	Chinese medicine practitioner	1 Person
4	Community health general practitioner	1 Person
5	Staff of elderly associations	1 Person
6	Staff of elderly welfare departments	1 Person
7	Staff of community administration departments	1 Person
8	Staff of sports associations	1 Person
9	CEO of elderly enterprises	1 Person
10	Exercise instructors	1 Person
11	Family members of elderly depression patients	1 Person
12	Professor, faculty of Social Sciences	1 Person
Total		14 Persons



1.4 Definitions of key terms

1.4.1 Recreational sports

Recreational sports carried out by people in their recreational time, which are not limited in form and have low requirements for venue facilities, emphasizing recreation and recreational sports fun, and physical and mental relaxation.

Recreational sports have developed with the mutual influence of education, politics, economy, society, ecology, and other dimensions of each country, and the concept of recreational sports has entered into many new fields.

Recreational sport is a practical activity in which human beings use physical activities as the basic means to recognize themselves, improve themselves, and then promote social development. It contains two functional attributes: social function and medical function. That is to say, recreational sports are easy, pleasant, easy to operate, social and therapeutically functional. (National Institute for Health and Care Excellence of China, 2022)

1.4.2 Strategy

Strategies refer to the courses of action and methods that are developed according to the development of the situation. In this study, it refers to the social policies and specific methods that can be developed for the society related to the improvement of depression among the elderly in Guangdong.

This research is a strategy, so when doing this recreational sports strategy for the depression problems of the elderly in Guangdong. The first focus is whether this strategy is beneficial or positive to society and the people, and in addition, the feasibility of this strategy is also an important factor to consider. The feasibility of this strategy is also an important factor to consider, not just an unattainable study. After determining these two, the questionnaire survey method, interview method, SWOT data analysis method, TOWS analysis method, and bringing in experts in different fields who specialize in related strategies to conduct a rigorous evaluation and analysis method were used to construct the strategy in its entirety.

1.4.3 Depression

Depression is a mental illness characterized by persistent sadness, loss of interest or enjoyment in activities, and other symptoms that affect personal functioning and daily activities.

In this study, when researching recreational sports strategies for the depression problems of the elderly in Guangdong, the considerations were whether elderly patients with depression like to play recreational sports, whether they believe that recreational sports can treat depression in the elderly, and whether the treatment with recreational sports is necessarily better than medication. Sports treatment is necessarily better than medication, and whether the special nature of depression is compatible with recreational sports, a questionnaire method was used to listen to the voices of the elderly patients to ensure the accuracy and validity of the study.

1.4.4 Elderly people

Elderly people in this study refer to people aged 60 or above who are able to move freely and think clearly.

The subjects of this study are elderly depression confirmed to suffer from depression, a combination of elderly depression and depressed patients, unlike normal elderly depression, so it is important to listen carefully to the views and opinions of older patients to achieve an understanding of the psychological characteristics and real treatment needs of elderly depressed patients, as well as designing and formulating strategies to meet the therapeutic needs of elderly patients.

1.5 Benefits of the research

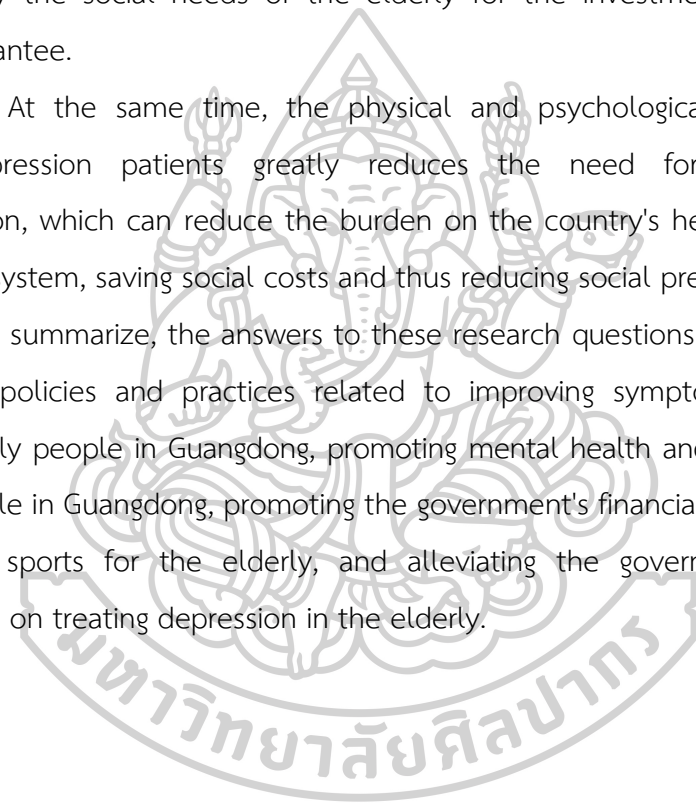
1. In the face of the serious challenge of population ageing, many developed countries have adopted the scientific strategy of recreational and sports as one of the measures to improve depression in the elderly, and China is no exception. As an important condition to ensure the improvement of depression in the elderly, the scientific recreational sports strategy can improve the symptoms of

depression in the elderly, improve the physical and mental health, quality of life, and other aspects of the elderly, but also enhance the sense of well-being of elderly life.

2. The research effect of the related strategy is to promote the financial investment of the financial department of Guangdong Province in recreational sports activities for the elderly, such as in the construction of sports venues, the design of sports equipment and supplies, the training of professional instructors, etc., which can better satisfy the social needs of the elderly for the investment of the national welfare guarantee.

3. At the same time, the physical and psychological improvement of elderly depression patients greatly reduces the need for medication and hospitalization, which can reduce the burden on the country's health insurance and health care system, saving social costs and thus reducing social pressure.

To summarize, the answers to these research questions will help to inform and advise policies and practices related to improving symptoms of depression among elderly people in Guangdong, promoting mental health and well-being among elderly people in Guangdong, promoting the government's financial sector's funding of recreational sports for the elderly, and alleviating the government's healthcare expenditures on treating depression in the elderly.



Chapter 2

Literature Review

This study is based on the related theories: theories of recreational sports, theories of elderly depression, SWOT and TOWS analysis, and combined with previous studies, to analyze the current situation of depression symptoms among the elderly in Guangdong in various aspects and to develop strategies for organizing recreational sports to solve the problem of depression among the elderly population in Guangdong.

The relevant theories and previous studies are as follows:

1. Theories of recreational sports
2. Theories of elderly depression
3. SWOT analysis
4. TOWS analysis
5. Spatial context
6. Previous studies

2.1 Theories of recreational sports

Recreational sports:

It refers to the physical exercise activities that people do in their recreational time for the purpose of improving physical and mental health, enriching and creating life interests, and perfecting themselves.

Recreational sports contain medical value: adherence to scientific recreational sports exercise can improve the structure and function of each system of the whole body be improved.

1. It can improve immunity and play a role in preventing the occurrence of chronic diseases and promoting the physical rehabilitation of participants.

2. It can strengthen the function of the cardiovascular system and reduce the occurrence of cardiovascular and cerebrovascular diseases.

3. It can make the structure and function of bones, joints, and muscles well-coordinated and avoid the occurrence of sports trauma.

4. It can prevent the atrophy of nerve function and improve the balance and coordination function of the body.

5. It can regulate insulin secretion and prevent obesity and diabetes.

6. It can enhance the function of the respiratory system, thus strengthening the resistance of the respiratory tract and lungs.

The mental health value of recreational sports: it can nourish mental health through the hormonal chemicals produced by sports.

1. It can be used to promote mental health and improve emotional effects.

2. It can produce the psychological effect of good physical and mental pleasure.

3. It can produce a sense of accomplishment after exercise. (Zhang Wenzhe, 2018) Characteristics of recreational sports:

Characterized by freedom, culture, non-utilitarian and initiative.

Recreational Sports for the Elderly: In the context of geriatric health, the definition of recreational sports for the elderly refers to organized, low-intensity, safe, physically and mentally pleasurable physical and cognitive sports that can be carried out in any free time (regardless of the length of time) for the elderly, and are designed to promote the overall health of the elderly through gentle exercise, mental relaxation, and the

ability to participate in a socially interactive life in the form of recreational small flat Physical activity. Such as tai chi, eight-duan brocade, chess and walking.

Characteristics of recreational sports for the elderly:

These recreational sports are easy to perform, adaptable to the fitness levels of different participants, and physically and mentally coordinated.

These recreational sports emphasize stress reduction, stimulation of cognitive functioning, and maintenance of emotional balance in participants, rather than being competitive or high-intensity sports. (Zhang Xinkai, 2008)

Rooted in cultural traditions and evidence-based practices, recreational sports are a sustainable positive intervention for disease that can enhance the physical resilience of the aging population while promoting mental health and connecting participants to the community, thus ensuring the social attributes of elderly depression.

To summarize, the key elements emphasized in recreational sports are:

1. Low-intensity, highly adaptive exercise.
2. Positive movement that integrates mind and body (physical + cognitive).
3. Stress-reducing and emotionally enriching benefits
4. Have high cultural relevance (e.g., Tai Chi is a traditional practice)
5. Has high social attributes and active community participation.

The theory of recreational sports refers to the sports that people carry out in their recreational time, with unconventional project forms and low requirements for venue facilities, emphasizing recreation and recreational sports fun, relaxation, and physical and mental relaxation. Characteristics of recreational sports: (1) smooth experience, (2) time freedom, (3) full physical activity, (4) pursuit of the best state of mind, (5) autonomous participation, (6) non-utilitarian, (7) diversified self-realization. (Li Xiangru and Ling Ping, 2011)

The theory of recreational sports refers to what people carry out in their

recreational time, so the basic condition of recreational sports is the time left only after work and necessary life and study tasks are completed, and it can be imagined that the time is limited. In this study, since the experimental subjects are all elderly people over 60 years of age, they are more relaxed and flexible in arranging the time for the relevant recreational sports due to the fact that they are already in retirement or have retired from their main job position in terms of age. (Chong Jingping, 2020)

The programs and forms of sports are diverse, and the requirements for venue facilities are not high. Therefore, in this study, it is not emphasized that a unified and fixed sports type and mode are required for each experimental site in Guangdong Province. Only focus on the individual needs of each experimental subject. (Chong Jingping, 2020)

Recreational sports that emphasize recreation and recreational, sports fun, and relaxation of the body and mind. Compared with traditional competitive sports, recreational sports refer to a social and cultural activity in which people experience physical and mental freedom and vitality through sports activities in their free time, satisfying physical and mental pleasure. Not only can it relieve stress, but it can also relax overly tense emotions. (Zhao Xiaolin, 2015)

Recreational sports are divided into five categories: bodybuilding, recreational games, competitive confrontation, health care, and adventure. (Zhao Xiaolin, 2015)

also experience mobility problems, chronic pain, frailty, dementia or other health problems, of which many are at risk of developing mental illnesses such as depression and anxiety disorders, and as they age, older persons may experience several symptoms at once, for which it is important to provide them with the various forms of long-term care that older persons need to ensure both their physical and mental health. Among them, this study will focus on the discussion of elderly depression.

First, we must understand the concept of elderly depression. Elderly depression is defined in a broad and narrow sense. The narrow definition of elderly depression refers to primary depression that first develops in old age. while the broad definition of elderly depression refers to all depression that occurs in old age. Whether first or recurrent, physical illness, pain, loneliness, cognitive impairment, and low economic status increase the likelihood of elderly depression, and continued progression of elderly depression increases the risk of obesity, diabetes, dementia, and death. (Lanzhou Third People's Hospital, 2023)

Second, we should be aware of the global rate of mental disorders in elderly depression.

According to relevant world studies, approximately 14% of adults aged 60 and older worldwide are found to have a mental disorder, and these disorders account for 10.6% of total disability (disability-adjusted life years) among the elderly depression. The most common mental health problems among the elderly depression are depression and anxiety. Globally, about one-quarter (27.2%) of all suicide deaths occur among people aged 60 or older. (World Health Organization,2023)

Third, we must understand the symptoms and consequences of depression in the elderly.

Symptoms of depression in the elderly usually differ from those of younger people. Common manifestations include persistent sadness, loss of interest in previously enjoyed activities, and somatic complaints such as unexplained pain, fatigue, or sleep disturbances (e.g., insomnia or drowsiness). Cognitive symptoms,

including memory difficulties, slowed thinking, and poor concentration, as well as emotional withdrawal and social isolation, are also frequent. Notably, elderly depression may underreport psychological distress and instead emphasize physical complaints, which can lead to misdiagnosis or delayed treatment. In addition, suicidal ideation (especially in older men) and increased feelings of hopelessness are important indicators that require urgent attention.

The consequences of untreated late-life depression are severe and multifaceted. It exacerbates chronic health conditions (e.g., cardiovascular diseases, diabetes) and increases mortality risks, partly due to poor self-care and medication nonadherence. Socially, depression amplifies isolation, straining familial relationships, and reducing quality of life. Functionally, it impairs daily living activities, such as managing personal hygiene or household tasks, and elevates caregiver burden. Critically, depression in the elderly is strongly linked to suicide, with older men exhibiting the highest suicide rates among all age groups. Early intervention is vital, as prolonged depressive episodes correlate with irreversible cognitive decline and accelerated neurodegeneration. (Yang Liheng, 2023)

Elderly depression is the most common mental disorder among the elderly, characterized by low mood or lack of interest or pleasure, and can be accompanied by varying degrees of cognitive and behavioral changes. As of the end of 2022, the national

For elderly people with depression, health care activities are a more suitable choice. There are Tai Chi, Baduanjin, Qigong, Wuqinxi, etc. Its characteristics are introverted and reserved, enjoying oneself, cultivating both body and mind in a peaceful and peaceful environment, and maintaining health in freedom. (Zhao Xiaolin, 2015)

2.2 Theories of elderly depression

2.2.1 Concepts of elderly depression

2.2.1.1 Definitions and changes in physical and Health in normal elderly.

1. Healthy Elderly:

Refers to elderly people aged 60 and above who are living on their own or basically on their own, and whose physical, psychological, and social aspects tend to be harmonized and in harmony with each other. The aging changes of important organs do not lead to obvious functional abnormalities, the risk factors affecting health are controlled within the range appropriate to their age, and their nutritional status is good. Their cognitive function is basically normal, optimistic and positive, self-satisfied, they have a certain degree of health literacy, and they maintain a good lifestyle. They actively participate in family and social activities and have a good ability to adapt to society. (Ye Zengjie, 2017)

2. Chinese Healthy Elderly Standard.

Chinese healthy elderly people should meet the following requirements.

- 1) They can take care of themselves or basically take care of themselves.
- 2) The aging changes of important internal organs and tissues have not led to obvious functional abnormalities.
- 3) Risk factors affecting health are controlled within a range appropriate to their age.
- 4) Good nutritional status.
- 5) Cognitive function is basically normal.
- 6) Being optimistic and self-satisfied.
- 7) Have a certain degree of health literacy and maintain a good lifestyle.
- 8) Active participation in family and social activities.
- 9) Good social adaptability. (National Health Commission of China, 2023)

2.2.1.2 Elderly depression.

With the tremendous development of world productivity, high economic growth, and the massive application of science and technology in the research and development and use of medicines, the total length of human life has been continuously extended, and the world population is rapidly aging.

The world's population is ageing fast. In 2020, 1 billion people in the world were aged 60 years or over. That figure will rise to 1.4 billion by 2030, representing one in six people globally. By 2050, the number of people aged 60 years and over will have doubled to reach 2.1 billion. The number of persons aged 80 years or older is expected to triple between 2020 and 2050 to reach 426 million. (World Health Organization, 2023)

Elderly depression contributes to society as members of their families and communities, and while most are physically healthy when they are young, their physical functioning continues to deteriorate as they continue to age. Many older persons may

population of China is 1411.75 million, including 280.04 million people aged 60 and above. (National Bureau of Statistics of China, 2023). The detection rate of depression risk among this group of elderly people aged 60 and above is 16%, with a total of 44.81 million people. (Chinese Academy of Sciences, 2022) As a populous province, Guangdong Province also faces such difficulties. As of the end of 2022, Guangdong Province has a total population of 126.03 million, of which 15.5651 million are elderly people aged 60 and above. (National Bureau of Statistics of China, 2023) The detection rate of depression risk for this group of elderly people aged 60 and above is 9.93%, with a total of 1.5456 million people. (Chinese Academy of Sciences, 2022)

2.2.2 Elderly depression is a disease that endangers the physical health and quality of life of the majority of elderly people.

The pathogenesis of depression in the elderly mainly includes:

(1) Cytokine imbalance: mainly due to decreased levels of neurotrophic factors and increased expression of inflammatory factors (tumor necrosis factor)- α , Interleukin-1 β , and IL-6, etc.).

(2) The production and secretion of monoamine neurotransmitters decrease, mainly including norepinephrine (NA), 5-hydroxytryptamine (5-HT), and dopamine (DA).

(3) Neurological system damage, mainly due to apoptosis of hippocampal neurons and reduced neurogenesis.

(4) Hippocampal mitochondrial energy metabolism disorders. These pathogenic factors work together to lead to the occurrence of depression. (Chinese Academy of Sciences, 2022)

The hazards of depression in the elderly:

(1) Causing or exacerbating chronic physical pain. Depression not only brings mental pain to elderly patients, but also physical pain to patients.

(2) Causing a decrease in immunity. Depression can cause imbalances in the immune system, leading to age-related diseases in the elderly population.

(3) Aggravating or inducing heart disease. The risk of heart disease in elderly people with depression is twice that of normal elderly people, and it is an undeniable fact that depression is related to the heart.

(4) Causing suicide. 10% of patients with depression choose to commit suicide, with the majority being elderly. They always consider themselves useless people and a burden on their families. (Ministry of Civil Affairs of China, 2022)

2.2.3 Treatment.

The main treatment methods for depression in the elderly include medication, psychological therapy, and physical therapy. Recreational sports therapy is a highly recommended treatment method among multiple guidelines and has become a hot topic in the treatment of depression in the elderly due to its advantages of high compliance, strong operability, and few side effects. At present, according to relevant guidelines, aerobic recreational sports are the preferred recreational sports method in recreational sports therapy. Recreational sports methods include walking, jogging, running, yoga, aerobics, Tai Chi, public square dancing, cycling, etc. The maximum heart rate value is 50% to 80% for recreational sports intensity. Suggest 3-5 times a week, 45 to 60 minutes each time. (Qiao Hui, 2021)

2.3 SWOT Analysis

SWOT analysis is a comprehensive analysis of four aspects: Strength (S), Weakness (W), Opportunity (O), and Threats (T), also known as situational analysis and Dawes matrix. (Humphrey Albert, 1960)

In 1965, Learned proposed the internal strengths and weaknesses, external opportunities and threats involved in SWOT analysis, but only analyzed them in isolation. Kenneth R. Andrews (1916-2005) first proposed a framework for strategic analysis in his classic book *The Concept of Corporate Strategy*, published in 1971, in which he defined strategy as the match between what a company can do (Might do) and what it can do (Can do). The so-called "Can do" is the opportunity and threat provided by the environment. "Can do" is the company's own strengths and weaknesses. This is the famous SWOT analysis. Heinz Wehrich, an international management and behavioral sciences expert at the University of San Francisco, developed SWOT analysis in the early 1980s and proposed the TOWS analysis.

S: Strength is the internal factors of the organization, including: favorable competitive situation, adequate financial resources, good corporate image, technological strength, economies of scale, product quality, market share, cost advantages, advertising campaigns, and so on.

W: Weakness is the aspect of relative weakness in competition. It is also the internal factors of the organization, including: aging equipment, management chaos, lack of key technologies, backward research and development, lack of funds, poor management, product backlog, poor competitiveness, and so on.

O: Opportunity is the organization's external factors, including: new products, new markets, new demand, market barriers lifted, competitors' mistakes, and so on.

T: Threats are also the organization's external factors, including: new competitors, increasing alternative products, market tightening, industry policy changes, economic recession, customer preference changes, unexpected events, and so on.

SWOT analysis method by evaluating its strengths (S), weaknesses (W), external competition on the opportunities (O) and threats (T), the use of this method, you can be a comprehensive, systematic and accurate study of the scenario of the object of study, to formulate the appropriate development strategy based on the results of the study, plans and countermeasures based on the results of the study. (Humphrey Albert, 1960)

2.4 TOWS Analysis



Figure 1 TOWS Diagram

TOWS Analysis is a strategic management tool that builds upon the traditional SWOT analysis framework. While SWOT focuses on identifying the internal Strengths and Weaknesses, as well as external Opportunities and Threats, TOWS shifts the focus to developing actionable strategies. It emphasizes the relationship between

internal and external factors, helping organizations to formulate strategies by matching their strengths with opportunities, addressing weaknesses against threats, and leveraging strengths to counteract weaknesses. This approach encourages a proactive mindset, allowing businesses to navigate challenges effectively and capitalize on potential growth areas. TOWS Analysis is widely used for strategic planning, decision-making, and competitive positioning across various industries.

SO (Strengths-Opportunities) Strategies: These strategies leverage the organization's internal strengths to take advantage of external opportunities. The goal is to capitalize on favorable conditions in the market by utilizing the company's robust capabilities. For example, a strong brand reputation may help a company expand into new markets.

ST (Strengths-Threats) Strategies: These strategies use the organization's strengths to mitigate or avoid external threats. This approach focuses on how existing capabilities can help the business defend against competition or market downturns. For instance, a company with strong customer loyalty might create value-added services to fend off competitors.

WO (Weaknesses-Opportunities) Strategies: These strategies aim to overcome internal weaknesses by utilizing external opportunities. The idea is to address deficiencies that could hinder growth while taking advantage of market opportunities. For example, a business may invest in employee training to enhance skills that can help it capture a new market segment.

WT (Weaknesses-Threats) Strategies: These strategies involve reducing internal weaknesses to defend against external threats. They focus on minimizing risks and vulnerabilities, often leading to contingency planning or cost-cutting measures. For example, a company facing declining sales may need to streamline operations to survive a competitive threat.

Overall, the TOWS Analysis provides a structured approach for organizations to align their internal capabilities with external market conditions, fostering strategic decision-making that enhances competitive advantage. (Wehrich Heinz, 1982)

2.5 Spatial context

2.5.1 Overview of Guangdong Province and its relevance to the prevention and treatment of elderly depression

1. Overview of Guangdong Province

Guangdong Province is located in the coastal area of southern China, bordering the two Special Administrative Regions of Hong Kong and Macao, with a mainland coastline of about 4,114 kilometers and a total area of about 179,700 square kilometers. As of 2023, there are 21 cities under the jurisdiction of Guangdong Province. (People's Government of Guangdong Province, 2023) The climate type of Guangdong Province belongs to subtropical monsoon climate, with an average annual temperature of 19 - 25°C and an annual precipitation of 1,500~2,000 millimeters, with the rainy season concentrated in April - September. (Guangdong Meteorological Bureau, 2024) Guangdong Province's total GDP exceeded 13 trillion yuan in 2023, ranking first in the country for the 34th consecutive year. As of the end of 2021, the total population of Guangdong Province was 126.03 million, of which 15,565,100 were elderly people aged 60 and above, accounting for 12.35%. It is expected that by 2030, the proportion of elderly population in the province will exceed 20%. (National Bureau of Statistics of China, 2023)

2. Situation related to elderly depression patients in Guangdong Province

As a province with a large elderly population, Guangdong Province is also a province with a large number of elderly depression patients. The risk detection rate of depression in the province is 10.6%, of which the risk detection rate of depression among the elderly aged 60 or above is 9.93%, totaling 1,545,600 people. (Chinese Academy of Sciences, 2022)

3. Favorable Conditions for Implementing Recreational Sports to Alleviate the Symptoms of Depression in the Elderly in Guangdong Province

Economic conditions:

(1) The total GDP of Guangdong Province exceeded 13 trillion yuan in 2023, with a growth rate of 5.2%, which makes a solid economic foundation for the governmental expenditures of alleviating the symptoms of depression in the elderly with recreational sports. (National Bureau of Statistics of China, 2023)

(2) In 2023, the Guangdong Provincial Government implemented the "National Fitness Campaign", and at the same time, the financial investment increased year by year, the annual financial expenditure on sports has exceeded 5 billion yuan, and focuses on supporting community-based sports programs for the elderly. (Guangdong Provincial Bureau of Statistics, 2023)

Environmental conditions:

(1) Guangdong Province has a per capita area of 2.8 square meters of sports space, and the province's greenways total more than 20,000 kilometers, providing many free fitness spaces for the elderly.

(2) In 2023, Guangdong Province will provide psychological counseling rooms and community exercise rooms for the elderly in 85% of the communities in the two major cities of Guangzhou and Shenzhen, respectively. (Guangdong Provincial Health Commission, 2024) (Guangdong Provincial Health Commission, 2024)

3. Policies and Human Conditions

Policy Response

(1) In 2023, the Guangdong Provincial Government issued the Healthy Guangdong 2030 Plan, which required the province to achieve a community-based mental health screening rate of $\geq 50\%$ for the elderly by 2025, which would facilitate

the scientific screening of elderly patients with depression who really need treatment.

(2) A pilot program combining recreational sports and elderly mental health body was set up to promote taijiquan, Baduanjin, and other exercise prescriptions in 20 communities in Shenzhen and Guangzhou, and the depression scale (GDS-15) scores of elderly depressed patients decreased by 24% after 6 months of intervention treatment, which illustrated a 24% increase in the average rate of improvement of the patients. (Guangdong Provincial Health Commission, 2024)

(3) Vigorously train village doctors to carry out basic psychological interventions for elderly patients with depression and to provide guidance on the use of leisure sports to alleviate depressive symptoms. (Guangdong Provincial Government, 2023)

4. Shortcomings of Implementing Recreational Sports to Relieve Symptoms of Depression in Older Adults in Guangdong Province.

(1) Uneven resource support between urban and rural areas. In the urban areas of Guangdong Province, the reachable extent of the community sports area where elderly depression patients can engage in recreational sports is 80%, but in the western areas of Guangdong Province, for example, in the city of Maoming, the coverage rate of community sports centers in rural areas is less than 40%. (Guangdong Provincial Government, 2023)

(2) There is a big deviation between urban and rural elderly patients with depression in their knowledge of related diseases, which is manifested in the large gap between their knowledge of depression, diagnosis, treatment, and the auxiliary role of leisure sports. Among them, 72% of rural elderly people have the cognitive misunderstanding that "depression only requires medication." (Guangdong Provincial Health Commission, 2024)

(3) Compared with the affluent coastal areas of Guangdong Province, in the economically backward western areas of Guangdong Province, the consultation rate of depression among rural elderly is less than 30%, and the popularity of sports interventions is low. (Guangdong Provincial Health Commission, 2024)

2.5.2 Overview of Maoming City and Its Relevance to the Prevention and Treatment of Depression in the Elderly

1. Political and economic introduction of Maoming City

Maoming City is a city under the jurisdiction of Guangdong Province, located in the southwest of Guangdong Province. Located south of the Tropic of Cancer, Maoming belongs to the subtropical monsoon climate zone, with an average annual temperature ranging from 22.4°C to 24.3°C, and the number of days with a stable temperature of 22°C can reach 213-263 days. The city's administrative area has a total land area of 11,452.05 square kilometers, with a coastline of 1,821 kilometers. The year-end resident population in 2023 was 6,252,300 people. In terms of economic overview, in 2024, Maoming realized a gross regional product (preliminary accounting number) of 407.204 billion yuan, an increase of 2.5% over the previous year. (Maoming Municipal People's Government Office, 2025)

2. Situation related to elderly depression patients in Maoming City

(1) Number of elderly people and elderly depression patients in Maoming City

In Maoming City, the population aged 60 years and above is about 1,296,000 people, accounting for 19.2% of the city's total population (higher than the national average of 18.7%), and Maoming's degree of aging is at the middle level of Guangdong Province, but aging is more significant in rural areas. (Maoming Municipal Bureau of Statistics, 2023)

Estimation of elderly depression: According to the data from the Center for Mental Health of the Chinese Center for Disease Control (CCDC), the prevalence rate of elderly depression in the country is about 12%-15% (urban) and 18%-20% (rural). Combined with a study in Guangdong Province 2021 for the western part of Guangdong Province (including the Maoming sample), which showed that the prevalence of elderly depression in rural areas was 19.3% (Chinese Journal of Gerontology 2022), and using this to estimate the number of patients (based on a conservative prevalence rate of 15%), the number of elderly depression patients in Maoming City would be approximately 1,940,000 ($1,296,000 \times 15\%$), of which the

proportion of patients from rural areas may be more than 60%. (Maoming Chronic Disease Prevention and Control Center, 2022)

(2) The current situation of elderly depression in Maoming City

Low consultation rate: data show that elderly depression patients account for only 8.5% of outpatient consultations, indicating that a large number of patients do not receive standardized treatment. (The Third People's Hospital of Maoming City, 2022)

High misdiagnosis rate: the recognition rate of elderly depression in general hospitals is less than 30%, and somatization symptoms (e.g., insomnia, chronic pain) are often misdiagnosed as organic diseases. (Maoming People's Hospital, 2021)

3. Favorable conditions for implementing recreational sports to alleviate symptoms of elderly depression in Maoming City

Economic conditions:

(1) In 2023, Maoming City's public budget revenue was 15.160 billion yuan, an increase of 4.2%, which could have supported the economic need for government expenditures to alleviate the symptoms of elderly depression with recreational sports. (Maoming City Finance Bureau, 2024)

(2) In 2023, the per capita disposable income of urban residents in Maoming City is 36,624 yuan, and the per capita disposable income of rural residents is 25,036 yuan, which ensures the economic need for the expenditure of personal expenses for the elderly to participate in leisure sports in Maoming City. (Maoming City Finance Bureau, 2024)

Environmental conditions:

(1) In 2023, after receiving a total of 600 million yuan of central financial support from the Chinese government for ecological restoration and marine ecological protection and restoration projects, the ecological environment in Maoming City continued to improve through the efforts of relevant government departments, and the air quality of Maoming City ranked steadily among the top in the province. The air quality in Maoming City is among the highest in the province. It is a good air environment for the elderly people in Maoming to participate in recreational and sports activities. (Maoming City Government, 2024)

(2) In 2023, Maoming City will have built comprehensive senior citizen service centers in all 93 towns under its jurisdiction, and these centers will be able to arrange for senior citizens to engage in recreational sports. (Maoming City Health Committee, 2024)

(3) In 2023, Maoming City has vigorously promoted urban renewal and has renovated 120 old neighborhoods, providing a large number of venues that are convenient for the elderly to participate in recreational sports. (Maoming City Government, 2024)

3. Policies and human conditions

(1) In 2024, the city of Maoming held the National Games, and the government of Maoming took this as an opportunity to launch a large number of preferential policies, which greatly promoted the development of the combination of culture, tourism, and sports, and the leisure sports of the elderly were also greatly supported.

(2) Maoming City is a typical southern city and a famous longevity city. The elderly in the south believe that exercise is a good way to maintain health, and the elderly in Maoming believe that leisure sports can help them to be healthy and live longer.

4. Inadequacies in the implementation of leisure sports to alleviate the symptoms of depression among the elderly in Maoming City.

(1) Insufficient financial allocation: Maoming's health care expenditure accounts for 8.2% of financial expenditure, lower than the average level of 9.6% in Guangdong Province, of which the mental health special fund only accounts for 3.1% of the health care expenditure, so the funds to support the implementation of recreational sports are even more insufficient. (Maoming Municipal Finance Bureau, 2024)

(2) Imbalance in the allocation of medical resources: mainly in the gap between urban and rural areas, six of the city's seven hospitals above the second level are located in urban areas, while rural areas with high incidence of depression rely on only 142 township health centers to provide basic services, only 23% of which are staffed with licensed psychiatrists, which has further impacted the

promotion of recreational sports for the treatment of depression in the elderly. (Maoming City Health Commission, 2024)

(3) Specialty construction lags: compared to Zhuhai City with similar GDP (8 psychiatric institutions), Maoming City has only 1 tertiary psychiatric hospital configuration, which is difficult to meet the diagnosis and treatment needs of the 194,000 predicted patients, and has a greater impact on the promotion and trial implementation of recreational sports. (Maoming City Health Commission, 2024)

2.5.3 Research relationship between Guangdong Province and Maoming City

Guangdong Province is one of China's 34 provincial administrative regions (including 23 provinces, 5 autonomous regions, 4 municipalities, and 2 special administrative regions), with 21 cities under the jurisdiction of Guangdong Province. Maoming City is one of the cities under the jurisdiction of Guangdong Province. China → Guangdong Province → Maoming City: This hierarchical relationship reflects China's administrative system of “center-province-city-village”. (China Map Publishing House, 2023)

The subjects in this study were 90 elderly depressed patients from Maoming City, Guangdong Province, China. The reasons for choosing Maoming City were:

(1) The original Maoming City was a very livable place with not many elderly depression patients, but in the past decade, elderly depression patients have been growing at a much faster rate, creating a social burden.

(2) The economic condition of Maoming City is poor, so most of the elderly patients with depression can only choose medication in the treatment process, and other treatment modalities (e.g., psychotherapy, physiotherapy, etc.) are less frequently used.

(3) Also because of the poor economic conditions, the drugs they choose to use are low-end drugs with relatively more side effects.

(4) Most of the elderly people in Maoming City like to work and exercise, and believe in the Chinese theory of health maintenance, which suggests that exercise can cure diseases.

(5) The research and implementation of strategies in a city is often a model for related strategies in the whole province, which is extendable and replicable, so the strategy research in Maoming City can serve as a reference for related strategies in the whole province.

2.6 Previous studies

2.6.1 Previous studies in China

Yang Fan et al., (2023), influence of Physical Exercise on Depression of Chinese Elderly. Based on the 2016 China Elderly Social Tracking Survey data, the author used multiple linear regression and structural equation modeling to explore the impact of recreational sports on the degree of depression in the elderly and its mechanism. Research has shown that sociodemographic characteristics, physical health, and social support factors all have a significant impact on depression scores in elderly people. After controlling for other variables, recreational sports still have a significant effect on reducing depression scores in the elderly. There is heterogeneity in the impact of recreational sports on the depression status of urban and rural elderly people, and the effect of recreational sports on reducing depression is more significant among urban elderly people. Conclusion: Recreational sports not only directly reduce depression scores in the elderly, but also indirectly reduce the likelihood of depression by improving their physical health level and peer support.

Qi Zheng et al., (2023), the Impact of Physical Fitness, Exercise, and Lifestyle Habits on the Detection Rate of Depression Symptoms in Guangdong's Elderly Population. This study explores the impact of physical fitness and exercise habits on the detection rate of depressive symptoms by understanding the basic physical fitness and exercise habits of the elderly population in Guangdong. The authors used stratified randomization to select a certain number of elderly depression aged 60-69 in Guangdong, collected data from physical fitness tests and self-administered questionnaires, used descriptive analyses to compare the differences in their physical fitness, exercise, lifestyle habits, and depression scale, and used regression methods to analyze the effects of basic information, comprehensive evaluation of physical

fitness, and sleep duration on the detection rate of depressive symptoms. Conclusion: Elderly people with standardized physical fitness were less likely to develop depressive symptoms, and standardized physical fitness, physical exercise habits, and good sleep quality could reduce the occurrence of depression. In the early stage of depressive symptoms in elderly depression, appropriate physical exercise and healthy lifestyle habits can be used to regulate mood and thus improve symptoms.

Xinghui Li et al., (2022), an investigation of the relationship between depression and physical activity among community-dwelling elderly with depression in Minhang District, Shanghai, China. In order to understand the incidence of depression among community-dwelling elderly depression in Minhang District, Shanghai, and to explore the relationship between depression and physical activity among elderly depression, the authors conducted a cross-sectional survey in Xinzhuang Town, Minhang District, Shanghai, in July-August 2019 by using randomized whole-cluster sampling, and a total of 2,518 valid questionnaires were obtained. Conclusion: Physical activity among community-dwelling elderly with depression can significantly reduce the probability of depression. It is recommended to promote physical activity among the elderly depression to prevent elderly depression. Other types of physical activity interventions, such as housework activities or volunteer activities, can also be designed to prevent elderly depression.

Guang Yang et al. (2016), relationship between taijiquan exercise and elderly depression. Depressive mood seriously affects the physical and mental health status and quality of life of the elderly, and taijiquan exercise, with its functions of strengthening the body and regulating the mind, may become an important intervention to effectively prevent the occurrence and development of depressive mood. The authors conducted a cross-sectional study on 529 elderly taijiquan enthusiasts aged 60 years or older and observed the relationship between the duration of long-term taijiquan practice and the prevalence of depression using the elderly depression Rating Scale (GDRS). Results: The shortest duration of taijiquan practice was 4 hours/week, the longest duration was 12,096 hours/week, and the overall prevalence of depression was 15.9%. Especially after adjusting for all

interfering factors, it was found that the duration of taijiquan exercise was still significantly negatively correlated with the prevalence of depression. Conclusion: Long-term and stable taijiquan exercise in the elderly can effectively reduce the occurrence and development of depression.

Xianqiang Deng et al., (2015), exercise capacity and influencing factors in elderly depressed patients. In this study, a stratified random sampling method was used to apply the elderly depression Scale (GDS) and a self-administered questionnaire form to elderly people over 60 years old in Zhaoqing City, Guangdong Province, and a total of 716 valid questionnaires were collected. Results: The incidence of depression among elderly people in Zhaoqing was 16.62%. sleep, economic income, literacy, personality, and physical activity were risk factors for the occurrence of depression in the elderly. and the exercise capacity of the elderly with depression was significantly lower than that of the non-depressed group. Conclusion: Depression is a more common mental health problem among the elderly. Maintaining fitness and exercise, getting along with others, and a positive mindset are related to the low incidence of depression in the elderly. Mental health services for the elderly should be strengthened.

Guizeng Zhao et al., (2015), A study of the effects of taijiquan exercise on mild depression in middle-aged and elderly depression. In order to understand the effect of taijiquan exercise on mild depression in middle-aged and elderly people, and to provide a high-quality, efficient, scientific, and accurate theoretical basis of taijiquan fitness for mild depression in middle-aged and elderly people, so as to promote better development of taijiquan exercise. The authors used the Elderly Depression Scale (GDS) to screen middle-aged and elderly people in Xinxiang City, and screened 52 middle-aged and elderly people with mild depression ($20 > \text{GDS} \geq 10$) as the study subjects. Results: After 1 year of taijiquan exercise, the depression score of the experimental group was significantly lower than that of the control group, and with the prolongation of taijiquan practice time, the depression score showed a decreasing trend. Conclusion: Taijiquan exercise has a positive effect on the psychological and mild depression of middle-aged and elderly people, and

taijiquan exercise can effectively improve the depression of middle-aged and elderly people.

Chunli Zhang and Liu Lijuan (2013), *The Influence of Physical Exercise on the Depression among the Elderly*. In order to explore the effect of exercise on the depression level of the elderly, the authors used a questionnaire to investigate the exercise and depression level of 1,000 elderly people aged 60 and above in Yangpu District, Shanghai. Results: Only 52.6% of the elderly depression exercised regularly, and the depression level of the elderly depression who did not exercise regularly was higher than that of the elderly depression who exercised regularly. Conclusion: Exercise can reduce the depression level of the elderly, and the elderly should be encouraged to participate in exercise more often.

Summary: Both from the basis of medical theory and social practice, it can be seen that recreational sports can effectively improve the depressive symptoms of elderly depressed patients. In addition, we can also see from the literature on development strategies how to find the law of related research from the existing basis and the investigation of samples, so as to formulate a more scientific development strategy to improve the depressive symptoms of elderly depressed patients.

Based on the above description of the domestic literature, this study believes that when developing strategies for treating elderly depression with recreational sports, we should focus on the laws of medicine and consider the physiological and psychological aspects of elderly depression patients in an integrated manner, so as to make the strategies more in line with the special physical needs of the elderly, for example, the programs of the sports should not be overly strenuous, and the duration of the sports is not suitable for an excessively long period of time, and so on. In terms of the material factors for the formulation of the strategies, such as the exercise venue, it should not be far away from the residences where the elderly live, otherwise, it will affect the willingness of the elderly to exercise.

2.6.2 Previous studies abroad

Hemmeter Ulrich, Michael and Ngamsri Theofanis (2022), physical Activity and Mental Health in the Elderly. This dissertation study found that the aging process is closely related to physiological changes that may lead to increased vulnerability to the development of physical and mental illnesses. At the same time, reduced physical activity or sedentary behavior enhances this process. In contrast, physical activity and exercise counteract this process, especially in elderly depression, who may gain or maintain a younger biological age as a result. Physical fitness is associated with better mental health in elderly depression. Conclusion: Physical activity and sport across the lifespan have been shown to have preventive value in the development of depression and dementia in old age. In addition, depression and cognitive impairment (MCI, mild cognitive impairment) in old age can be improved by regular, sustained physical activity. Some data further suggest that even people with dementia benefit from physical activity, especially for behavioral and psychiatric symptoms of dementia (BPSD).

Abdul Rahman Ali Mohammed Shukr et al. (2020), the association between physical activity and symptoms of depression. Depression is one of the major health problems facing the elderly depression today. The prevalence of this disorder has increased significantly and currently affects approximately 12-25% of the elderly population. Depression is characterized by a core set of signs and symptoms, including a depressed mood, social withdrawal, loss of interest in daily activities, weight loss or gain, disturbed sleep patterns, low energy, and a sense of hopelessness. This study examined the relationship between self-reported physical activity and depressive symptoms in 500 men and women aged 35 years who met Diagnostic and Statistical Manual of Mental Disorders-Major Depressive Episode IV criteria. Results: Unadjusted regression analyses revealed a significant relationship between self-reported physical activity and depression ($p = 0.04$). In addition, self-reported physical activity remained a statistically significant predictor of depression after adjustment for age and gender. Conclusions: The findings of this thesis emphasize the importance of increasing activity levels among the least active young

people. Participation in physical activity has additional benefits over activity alone. Physical activity and sport participation are recommended for children, adolescents, and adults based on mental and physical health.

Jesus Hidalgo (2019), effectiveness of Physical Exercise in the Treatment of Depression in elderly depression as an Alternative to Antidepressant Drugs in Primary Care. This study focuses on the fact that supervised physical activity is just as effective relative to antidepressant medication in reducing depressive symptoms in patients with clinical criteria for depressive episodes (ICD-10). The authors randomly assigned a total of 312 patients over the age of 65 with clinically significant depression to either a supervised physical activity program or to receive antidepressant medication commonly used in clinical practice during a 6-month follow-up period. Participants' physical status will be assessed again on day 15 and at months 1, 3, and 6. The primary outcome will be a reduction in pre-treatment scores on depressive symptom scales (Montgomery-Asberg Depression Rating Scale and Elderly Depression Scale). Conclusion: Physical activity has undeniable health benefits and can be applied to certain health problems, such as depression, and has major socioeconomic implications for the treatment of depression, as well as a significant impact on the quality of life of elderly depression.

Helmuth Haslacher et al. (2015), physical Exercise Counteracts Genetic Susceptibility to Depression. Depression is a very common disorder among the elderly depression. A genetic variant (rs6265) in brain-derived neurotrophic factor (BDNF), which affects emotional processing, is known to increase the risk of depression. This thesis investigated whether high-intensity endurance exercise attenuates this genetic susceptibility in a cohort of older marathoners. The authors used 5 athletes and 58 controls. The rs6265 of the BDNF gene was genotyped by TaqMan method. Meanwhile, depressive symptoms were assessed by standardized self-assessment tests (BDI = Beck Depression Inventory, GDS = Elderly Depression Scale). Results revealed strong interactions between groups (athletes vs. controls) and genotypes. Conclusion: The positive effect of exercise on BDNF and on mood confirms that genetic susceptibility to depressive symptoms is indeed influenced by endurance exercise in elderly depression.

Mi Ri Choi and Yang Chool Lee (2012), the Recreational Sports Participation, Life Stress, Depression and Buffering Effect of Resilience Among the Elderly. This study was to explore the buffering effect of recreational sport participation, life stress, depression and resilience among the elderly through the analysis of the mediating effect of resilience. The 243 elderly people who participated in this study were conveniently sampled from the elderly residents of Incheon City, and the collected data were analyzed for the completion of this study, and were subjected to reliability analysis, descriptive analysis, correlation analysis, standard multiple regression analysis, and hierarchical regression analysis, and the following conclusions were obtained from the analysis of this study: First, based on the statistics of data of elderly people who participated in recreational sports, recreational sport participation had an effect on life stress, depression, and resilience has a partial effect. Secondly, both participation level and life stress of elderly depression affect depression. Finally, life stress, depression, and psychological resilience in elderly depression are all related to the buffering effect of psychological resilience.

Hyun Jin-Hee and Kim Hee-Guk (2011), the Effect of Recreational Activities on Anxiety and Depression of the Elderly. The purpose of this study was to understand the effects of recreational activities on anxiety and depression in elderly depression and to make recommendations for practice. The subjects of the study were 303 community-dwelling elderly people over 65 years old. The results of this study are as follows. Firstly, socio-economic factors of the elderly did not have any effect on their anxiety. However, education level and spouse had a significant effect on depression in elderly depression. Second, recreational activities had a significant effect on both anxiety and depression in elderly depression. The more recreational activities they participated in, the less anxiety and depression they experienced. Third, in terms of the type of recreational activity, physical activity and sports had a significant effect on both anxiety and depression in elderly depression. Recreational activities only had a significant effect on depression. Conclusion: Based on these findings, practical strategies to reduce anxiety and depression, a prevalent mental health problem among elderly depression, are proposed.

Song Ji Joon and Um In Sook (2008), the Relationship between Recreational Types and Depression and Loneliness in the Middle-aged and the Elderly. This study was to explore the types of recreational that positively affect depression and loneliness in middle-aged and elderly depression. The sample size for this study was 275 middle-aged and 220 elderly depressions. The authors used SPSS ver.10.0 for statistical analysis (including t-test and multiple regression). The results of the study are as follows: First, differences in the types of recreational among middle-aged and elderly depression were identified. Middle-aged and elderly depression preferred the types of recreational (sports, viewing impression activities, social relations, and traveling) more than elderly depression, but elderly depression preferred recreational pastimes to sports. Activities had a positive effect on depression and loneliness in middle-aged and elderly depression, while recreation had a negative effect on depression in elderly depression. Thirdly, watching impressionistic activities had a positive effect on loneliness among middle-aged and elderly depression, whereas recreational pastimes had a negative effect on loneliness among both middle-aged and elderly depression. Finally, free time without activities increases loneliness among elderly depression. Conclusion: This study suggests the development of recreational programs, which are necessary to reduce depression and loneliness among middle-aged and elderly depression.

Summary: The foreign study is focusing on the psychological theory of elderly depression, which believes that recreational sports produce improved treatment through the nervous system and psychological system, but it is also in line with the conclusion of the related Chinese study that recreational sports can improve the symptoms of elderly depression. Meanwhile, in terms of development strategies, the Chinese study sees social groups and government departments as the dominant forces in development strategies, while the foreign study sees individual forces as dominant, which are two different views.

Based on the above description of foreign literature, this study concluded that when developing strategies for treating elderly depression with recreational sports, attention should be paid to meeting the needs of elderly patients with depression concerning the individual psychological aspects of recreational sports,

such as whether the selected sports are easy to operate, whether they are conducive to the interactivity of elderly patients, whether they bring a sense of fulfillment and success to elderly patients participating in the sports, and whether the price of participation is affordable. for affordability, etc., with the personal happiness of each elderly patient participating in leisure sports as the starting point for developing strategies.



2.7 Research Theoretical Framework

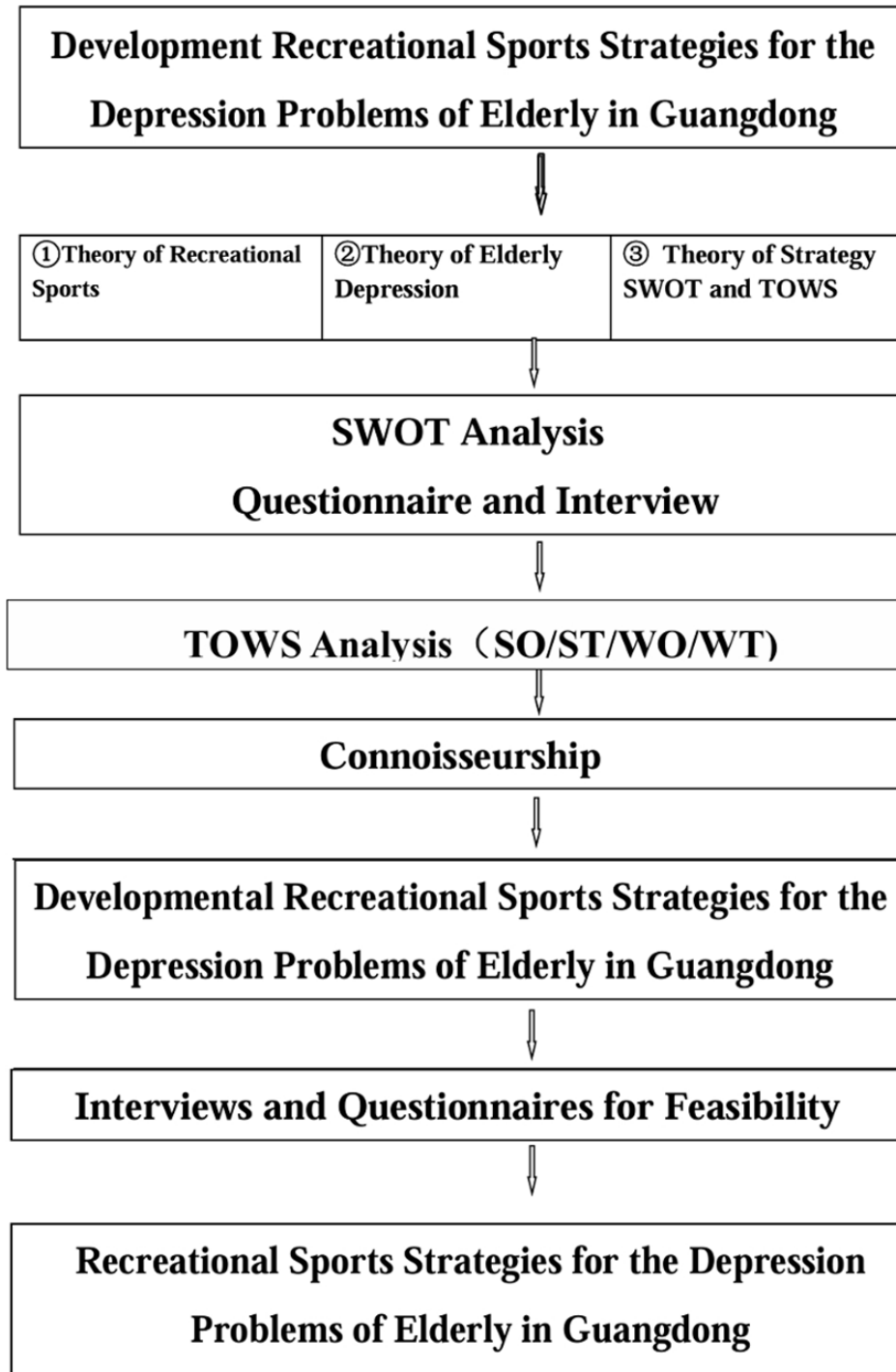


Figure 2 Research Theoretical Framework

Chapter 3

Research Methodology

Since this study of the development strategy of recreational sports in Guangdong Province with the aim to improve the symptoms of depression among the elderly, and it is to develop the strategy as the research objective, the research methodology of scientific research and development (Research and Development, R&D) is adopted.

This study consists of the following 4 steps:

Step 1: Research (R1): To study the current situation of recreational sports theories and countermeasures for the problem of depression among the elderly in Guangdong.

Step 2: Development (D1): To develop a strategy to reduce the problem of depression symptoms among the elderly in Guangdong Province.

Step 3: Research (R2): To validate the feasibility of the developed development strategy.

Step 4: Development (D2): To evaluate and refine the strategies and develop innovative strategies.

3.1 Type of research methodology

As this research aims to study Developmental Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong, with the development strategy as the research goal, scientific research and experimental development research methods (R&D) were adopted, including qualitative and quantitative analysis. During the research process, qualitative analysis methods were used for relevant theories and materials, while quantitative analysis methods were used for research and survey data.

- Literature method was used for the analysis and conclusion of the theory.
- Questionnaire and scale methods were used for the collection of data.
- Interviews were used for the collection of data.

3.2 Research methods

3.2.1 Literature method

In terms of relevant theories, recent academic papers in the China National Knowledge Infrastructure were mainly consulted to ensure the scientific frontiers of the theoretical knowledge system. For the research and design of the strategies, the recently published relevant data and latest policies were mainly reviewed in the National Bureau of Statistics of China and the National Health and Health Commission of China to ensure the accuracy of the policies and data in this study.

3.2.2 Questionnaire survey method

In the collection and analysis of relevant data, the main thing is to design a reasonable and targeted questionnaire in the original questionnaire according to each age group, each geographical area, each physical condition and so on. At the same time, in the process of collecting data and questionnaires, the design matters of the questionnaires are adjusted at any time for the problems that constantly arise.

3.2.3 Interview Method

The interviews were organized into 2 sessions, divided into an Interview for making strategies and an Interview for feasibility, with 11 respondents interviewed in Interviews for making strategies and 12 respondents interviewed in Interviews for feasibility.

3.3 Research area

Elderly depression is a disease that endangers the physical health and quality of life of the general elderly and is also an important consideration factor in national welfare policies. This study aims to improve the symptoms of depression among the elderly in Guangdong Province as the main goal of recreational sports development strategies and provides effective strategic advice for social welfare policies.

3.4 Population and sample of the study

3.4.1 Population of the study

The subjects of this study were 90 elderly patients with depression from Maoming City, Guangdong Province, China.

3.4.2 Sample of the study

3.4.2.1 The sample of this study consisted of 84 elderly depressed patients who were selected for a questionnaire survey using stratified random sampling methods. According to the sampling formula of Krejcie and Morgan (1970) is 73 patients. For protect from losing data, researchers collected data from 84 elderly patients with depression were sampled from the elderly depressed patients who could move freely in Qianpai Town, Maoming City, Guangdong Province, China.

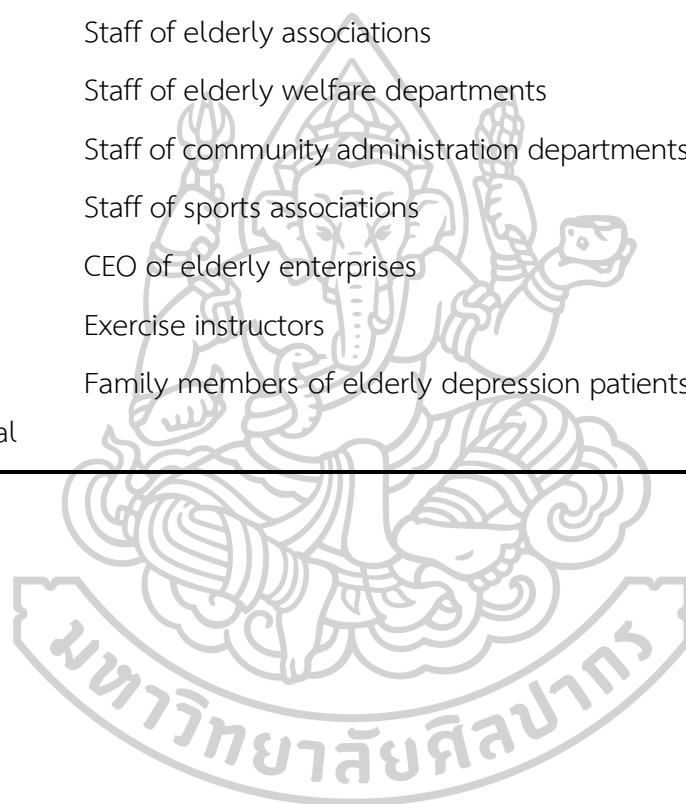
Questionnaires-1 (84 People)

No.	Gender	Number
1	Male	42 Persons
2	Female	42 Persons
Total		84 Persons

3.4.2.2 Key Informant of the study

(1) Interview for making strategy (11 People)

No.	Attributes Of Professionals	Number
1	Sports rehabilitation physician	1 Person
2	Psychiatrist	1 Person
3	Chinese medicine practitioner	1 Person
4	Community Health General Practitioner	1 Person
5	Staff of elderly associations	1 Person
6	Staff of elderly welfare departments	1 Person
7	Staff of community administration departments	1 Person
8	Staff of sports associations	1 Person
9	CEO of elderly enterprises	1 Person
10	Exercise instructors	1 Person
11	Family members of elderly depression patients	1 Person
Total		11 Persons



(2) Connoisseurship (9 Experts)

No.	Attributes Of Experts	Number
1	Doctor	4 Persons
2	Elderly welfare office staff	1 Person
3	Member of the association for the elderly	1 Person
4	Member of sports association	1 Person
5	Community director	1 Person
6	CEO of pension enterprise	1 Person
Total		9 Persons

(3) Interview for feasibilities strategy (12 People)

No.	Attributes Of Professionals	Number
1	Sports rehabilitation physician	1 Person
2	Psychiatrist	1 Person
3	Chinese medicine practitioner	1 Person
4	Community health general practitioner	1 Person
5	Staff of elderly associations	1 Person
6	Staff of elderly welfare departments	1 Person
7	Staff of community administration departments	1 Person
8	Staff of sports associations	1 Person
9	CEO of elderly enterprises	1 Person
10	Exercise instructors	1 Person
11	Family members of elderly depression patients	1 Person
12	Professor, faculty of Social Sciences	1 Person
Total		12 Persons

(4) Questionnaire for feasibility (14 People)

No.	Attributes Of Professionals	Number
1	Sports rehabilitation physician	1 Person
2	Psychiatrist	3 Persons
3	Chinese medicine practitioner	1 Person
4	Community health general practitioner	1 Person
5	Staff of elderly associations	1 Person
6	Staff of elderly welfare departments	1 Person
7	Staff of community administration departments	1 Person
8	Staff of sports associations	1 Person
9	CEO of elderly enterprises	1 Person
10	Exercise instructors	1 Person
11	Family members of elderly depression patients	1 Person
12	Professor, faculty of Social Sciences	1 Person
Total		14 Persons



3.5 Research process

Due to the use of research and development methodology (R&D) as the research method, the research design of this study consists of four parts. The process of this study is divided into four parts in total: R1→D1→R2→D2

3.5.1 Step 1: To study the theory of recreational sports and current situation of the strategies for the depression problems of elderly in Guangdong. (R1)

- (1) To study the related theory and the relevant national policies.
- (2) To choose the depression scale for the depression problems of elderly in Guangdong.
- (3) To construct the questionnaire and Interview Questions for collecting the data of recreational sports for the aging people.
- (4) SWOT analysis was used to analyze the recreational sports strategies for the depression problems of elderly in Guangdong.

3.5.2 Step 2: To develop the strategies for the depression problems of elderly in Guangdong. (D1)

- (1) TOWS Analysis. To create recreational sports strategies.
- (2) Strategies related to the government.
- (3) Strategies concerning sponsorship by social groups and civic organizations.
- (4) Support strategies for social workers, doctors, and geriatric caregivers.
- (5) Strategies required by the elderly patients with depression themselves.

3.5.3 Step 3: Connoisseurship (R2)

(1) Invite nine experts in relevant fields to conduct a workshop to validate the feasibility of the development strategy formulated.

(2) Revise the draft development strategy in the light of the relevant field knowledge of each expert.

(3) Composition of experts:

1) Four specialized doctors, from the Sports Rehabilitation Department, Psychiatry, Chinese Medicine, and Community Health General Practice.

2) One staff member from the Association of the Elderly.

3) One staff member from the Elderly Welfare Department.

4) One staff member from the Community Administration Department.

5) One staff member from the Sports Association.

6) One CEO of Pension Enterprise

3.5.4 Step 4: Improve the strategy (D2)

(1) To improve the Strategies by analyzing the suggestions of the experts.

(2) Formulate new strategy innovations.

(3) Feasibility Analysis.

3.6 Research tools

The research tools used in this study include questionnaires, depression scale for elderly depression, interview inventories, and data analysis software.

(1) Depression Scale: The depression scale to be used in the study will be the elderly depression Scale (GDS-15), (Yesavage and Sheikh, 1986) a widely used self-report scale designed for the elderly population. The GDS-15 consists of 15 items to assess mood, self-esteem, motivation, and cognitive symptoms related to depression. The GDS has been validated for use with Chinese populations and has a high level of internal consistency and re-test reliability.

(2) Questionnaire: The questionnaire will be used to collect data on participation in recreational sports activities, depression, and demographic variables. The questionnaire will consist of several sections, including demographic information, participation in recreational sports activities, etc. The questionnaire will be in paper and pencil format.

(3) Interview: This Interview will be used to collect data on participation in recreational sports activities, depression, and demographic variables for make strategies from their opinion on strengths, weakness, opportunities, and threats

(4) IOC Expert Validity Checklist: Use 3 experts for score the Validity and Reliability. The total score should be more than 0.5 for acceptance. Validity and reliability are key to any study, including this study on the development of recreational physical activity strategies in Guangdong Province with the aim of improving symptoms of depression in elderly depression.

1) Validity. Validity refers to the extent to which a study measures what it intends to measure. To ensure the validity of this study, several measures were taken during the study design and data collection process. For example, the questionnaire

used in this study was developed based on scales and measures that have been validated in the Chinese elderly population. The questioner of questionnaire could use Mandarin and Cantonese according to the subjects to avoid any information feedback errors due to miscommunication. A validated depression scale, the elderly depression Scale (GDS-15), was used to measure the level of depression among the study participants. The GDS-15 has been extensively validated and has high internal consistency and test-retest reliability.

2) Reliability. It refers to the consistency and stability of the research results over time and in different settings. To ensure the reliability of the results of this study, questionnaires were administered to a sample of elderly people with depression and the different experimental sectors in Guangdong Province. Data collected from the questionnaires and key informant interviews or focus group discussions were analyzed using appropriate statistical techniques and software, thus increasing the reliability of the findings.

At the same time, throughout the research process, closely linked to the Chinese and foreign related literature cited in this thesis, and in the cited literature, to distill the core ideas, used to guide the proper research of this thesis, to achieve both originality and professional public.

3.7 Data collection

Data were collected for the purpose of data analysis and statistics in order to derive the basis of the argument for the relevant study, to summarize the conclusions of the relevant study and to propose innovations. This study focuses on data collection in the following areas:

1. Data collection for the Depression Scale for elderly depression. The survey was administered to:

A total of 84 elderly patients with depression who were mobile in Maoming City, Guangdong Province.

2. Data collection of questionnaires. After collecting data from the depression scale of the elderly depressed patients in Guangdong Province who participated in the experiment, they were classified and selected according to place, gender and age group. The "table" was used as the first batch of data for qualitative analysis.

3. Data Collection of Interviews.

(1) Interview for making strategy(11People)

No.	Attributes Of Professionals	Number
1	Sports rehabilitation physician	1 Person
2	Psychiatrist	1 Person
3	Chinese medicine practitioner	1 Person
4	Community Health General Practitioner	1 Person
5	Staff of elderly associations	1 Person
6	Staff of elderly welfare departments	1 Person
7	Staff of community administration departments	1 Person
8	Staff of sports associations	1 Person
9	CEO of elderly enterprises	1 Person
10	Exercise instructors	1 Person
11	Family members of elderly depression patients	1 Person
Total		11 Persons

(2) Interview for feasibilities strategy(12people)

No.	Attributes Of Professionals	Number
1	Sports rehabilitation physician	1 Person
2	Psychiatrist	1 Person
3	Chinese medicine practitioner	1 Person
4	Community Health General Practitioner	1 Person
5	Staff of elderly associations	1 Person
6	Staff of elderly welfare departments	1 Person
7	Staff of community administration departments	1 Person
8	Staff of sports associations	1 Person
9	CEO of elderly enterprises	1 Person
10	Exercise instructors	1 Person
11	Family members of elderly depression patients	1 Person
12	Professor, Faculty of Social Sciences	1 Person
Total		12 Persons



4. Data Collection of questionnaires for feasibility. A total of five levels were set for the feasibility assessment scores of the strategy, as follows: (Zhao Xicang, 2011)

1.00 - 1.49: The feasibility of the strategy is at a very low level.

1.50 - 2.49: The feasibility of the strategy is at a low level.

2.50 - 3.49: The feasibility of the strategy is at a moderate level.

3.50 - 4.49: The feasibility of the strategy is at a high level.

4.50 - 5.00: The feasibility of the strategy is at the highest level.

3.8 Data analysis

The data collected by questionnaire will be analyzed by descriptive statistics.

Data analysis for this study will involve the use of statistical techniques to analyze the data collected, including descriptive and inferential statistics. The methods of data analysis for this study are:

(1) Descriptive statistics: Descriptive statistics will be used to summarize the characteristics of the study population and the study variables, including elderly depressed people in Guangdong Province, participation in recreational sports activities, and depression scores. Descriptive statistics will include measures of central tendency,

(2) Thematic analysis: Thematic analysis will be used to analyze data collected from key informant interviews or focus group discussions. Thematic analysis involves identifying patterns and themes in the qualitative data, which can provide additional insights into the mental health and well-being-related issues of the elderly population in Guangdong Province, as well as factors that improve symptoms of depression.

Data analysis for this study will be carried out using appropriate statistical software (e.g., SPSS or R) and will be conducted by senior researchers with expertise in statistical analysis. Data will be analyzed in accordance with ethical principles, including the principles of confidentiality and respect for participant autonomy.



Chapter 4

Data Analysis

This study aims to develop recreational sports strategies for the depression problems of the elderly in Guangdong. It has the following objectives of research are 3 objectives:

1. To study the theory of recreational sports and the current situation of the symptoms of depression in elderly people in Guangdong.
2. To develop recreational sports strategies for the depression problems of elderly in Guangdong.
3. To validate the feasibility of recreational sports strategies for the depression problems of elderly in Guangdong.

To study the theory of recreational sports and the current situation of depression symptoms among older adults in Guangdong.

Elderly depression is a mental disorder with first onset after the age of 60 years and with persistent depressive mood as the main clinical manifestation. Elderly depression has a serious impact on the physical and mental health of the elderly. In recent years, studies have found that exercise has a positive impact on alleviating the symptoms of elderly depression. Recreational sports have become a hot topic in the treatment of depression in the elderly because of the advantages of high compliance, strong maneuverability, and few side effects. In order to better study this theory, the questionnaire “Demand for Participation in Recreational Sports to Treat Depressive Symptoms among Elderly Depressed Patients in the Guangdong Community”, and the indicators were analyzed after the questionnaire was returned:

4. Analysis of questionnaire results

4.1 Analysis of basic information

4.1.1 Basic Information

Table 1 Frequency analysis of basic information

No.	Contents	Options	Frequency (N)	Percentage (%)
1	Gende	Male	42	50.00
		Female	42	50.00
2	Age	60-64	22	26.19
		65-69	22	26.19
		70-74	22	26.19
		75-79	18	21.43
3	Ethnicity	Han Minorities	84	100.00
		Ethnic	0	0
		Minorities	0	0
4	Religious Belief	Yes	0	0



No.	Contents	Options	Frequency (N)	Percentage (%)
		No	84	100.00
5	Cultural Level	Elementary school	12	14.29
		Middle school	38	45.24
		High school	20	23.81
		University	9	10.71
		Illiteracy	5	5.95
6	Marital Status	Married	84	100.00
		Unmarried	0	0
7	Number of Children:	1	7	8.33
		2	19	22.62
		3 and above	58	69.05
		0	0	0
8	The Nature of Household:	Urban household registration	36	42.86
		Rural household registration	48	57.14
9	Job Type	Civil Servant	18	21.43
		Enterprise Personnel	16	19.05
		Self-employed personnel	17	20.24
		Migrant Workers	16	19.05
		Farmer	17	20.24
10	Main source of finance	Pension	34	40.48
		Savings	20	23.81
		Children's allowance	25	29.76

No.	Contents	Options	Frequency (N)	Percentage (%)
		Financial support from relatives and friends	2	2.38
		Othe	3	3.57
11	Main source of medical expenses	National Health Insurance	34	40.48
		Savings	20	23.81
		Children's allowance	25	29.76
		Financial support from relatives and friends	2	2.38
		Others	3	3.57
12	Nature of your living house	Owned housing	52	61.91
		Housing belonging to your children	8	9.52
		Rented housing	9	10.71
		Living in a nursing facility	15	17.86

The analysis of the results of the statistical characteristics of the basic situation of the interviewed group shows that there are equal numbers of males and females, each accounting for 50%, 26.19% of the respondents are aged between 60 and 64, while the proportion of those aged between 75 and 79 is slightly lower, accounting for 21.43%, all of the respondents are Han Chinese, in terms of literacy level, the level of education is relatively low, with the highest proportion of junior high school education at 45.24%, all respondents are married, 69.05% have three or more children, according to the analysis of the proportion of the nature of household registration, rural household registration accounts for 57.14%, higher than the proportion of urban household registration, 42.86%, among the types of work of the respondents, the proportions of civil servants, farmers, and self-employed are higher, 21.43%, 20.24%, and 20.24%, respectively, and the source of economic resources Mainly rely on pension with 40.48%, followed by children's allowance and savings, 40.48% rely on national health insurance to pay for medical expenses, followed by 29.76% rely on children's allowance to pay for medical expenses, Most of the people own their own houses, accounting for 61.91%, while 9.52% live in their children's houses, and 17.86% reside in retirement institutions. At the same time, the analysis of the results shows that the target audience selected for the questionnaire is more representative and comprehensive.

4.1.2 Analysis of own physical condition

Table 2 Analysis of own physical condition

No.	Contents	Options	Frequency (N)	Percentage (%)
13	Your evaluation of your own health condition	Good	3	3.57
		General	8	9.52
		Not so good	70	83.33
		Very bad	3	3.57
14	Your evaluation of your own nutritional status	Good	3	3.57
		General	8	9.52
		Not so good	70	83.33
		Very bad	3	3.57
15	Your evaluation of your own sleep condition	Good	3	3.57
		General	8	9.52
		Not so good	65	77.38
		Very bad	8	9.52

From the analysis of the respondents' own physical conditions, it is clear that in terms of health, the vast majority (83.33%) consider their health condition to be “not good”. The vast majority of the respondents (83.33%) think that their health condition is “not good”, in the self-assessment of their nutritional condition, the vast majority of the respondents (86%) think that their nutritional condition is not good, and the self-assessment of their sleep condition is also not optimistic, with 77.38% of the respondents thinking that their sleep condition is “not good”, “not so good”. The results of the survey indicate that this group generally feels disturbed by their own health, nutrition, and sleep problems.

4.1.3 Depressive Symptoms Situational Analysis

Table 3 Depressive Symptoms Situational Analysis

No.	Contents	Options	Frequency (N)	Percentage (%)
16	The degree of your depressive symptoms	Severe	8	9.52
		Moderate	65	77.38
		Mild	8	9.52
		No feeling	3	3.57
17	Your depressive symptoms mainly stem from	Financial reasons	30	35.71
		Family reasons	18	21.43
		Physical illness reasons	20	23.81
		Other	16	19.05
18	The methods you used to improve your depressive symptoms during the	Taking medication	57	67.86
		Psychotherapy	6	7.14
		Counseling	7	8.33

No.	Contents	Options	Frequency (N)	Percentage (%)
	three months	Recreational sports	9	10.71
		No methods were used	5	5.95



An analysis of the depressive symptoms of the interviewed group shows that 38% of the elderly indicated moderate depressive symptoms, the main source of depression was economic reasons, accounting for 35.71%, and to cope with the depressive symptoms, 67.86% of the elderly chose to take medication. This indicates that depressive symptoms are quite common and severe in this group, but the treatment is relatively homogeneous.

4.1.4 Analysis of knowledge of the status of recreational sports

Table 4 Frequency analysis of knowledge about the status of recreational sports

No.	Contents	Options	Frequency (N)	Percentage (%)
19	How well do you know the contents of recreational sports?	Know it very well	8	9.52
		Know it	15	17.85
		Know it generally	38	45.24
		Don't know it at all	23	27.38
20	How much do you know about recreational sports programs?	Know it very well	8	9.52
		Know it	15	17.86
		Know it generally	38	45.24
		Don't know it at all	23	27.38
21	Do you think recreational sports can treat depression in old age?	Agree very much	8	9.52
		Agree	42	50.00
		Half believe	21	25.00
		Don't agree	13	15.48
22	If you agree, how much do you know about the treatment of depression in the elderly by recreational sports?	Very much	8	9.52
		Understand	15	17.86
		Understand generally	24	28.57
		Don't understand	37	44.05

An analysis of the respondents' knowledge of recreational sports and their role in treating depression in the elderly showed that nearly half of the respondents were only “generally aware” of the contents and programs of recreational sports, most of the respondents (59.52%) agreed or strongly agreed that recreational sports could treat depression in the elderly, Regarding the level of knowledge of those who agreed that recreational sports can treat depression in the elderly, 44.05% said they did not know. This indicates a low level of knowledge about recreational sports in this group.



4.1.5 Frequency analysis of time spent in Recreational sports

Table 5 Frequency analysis of time spent in Recreational sports

No.	Contents	Options	Frequency (N)	Percentage (%)
23	How much recreational time do you have on average every day?	Less than 1 hour	19	22.62
		1-2 hours	32	38.10
		2-3 hours	18	21.43
		More than 3 hours	15	17.86
24	On average, how much time do you have for recreational sports every day?	Less than 1 hour	19	22.62
		1-2 hours	32	38.10
		2-3 hours	18	21.43
		More than 3 hours	15	17.86
25	The time period during which you can participate in recreational sports: (multiple choices allowed)	Morning	71	32.42
		Afternoon	58	26.48%
		Evening	45	20.55%
		Other times	45	20.55%
26	The time period you prefer to participate in recreational sports: (Multiple choices allowed)	Morning	71	32.42%
		Afternoon	58	26.48%
		Evening	45	20.55%
		Other times	45	20.55%
27	On average, how many days a week can you	1-2 days	19	22.62
		3-4 days	32	38.10
		5-6 days	18	21.43

No.	Contents	Options	Frequency (N)	Percentage (%)
	participate in recreational sports:	7 Days	15	17.86

By looking at the interviewed groups in terms of daily Recreational time, up to 38.10% of them have 1 to 2 hours per day, the largest portion of people's daily exercise time is concentrated in 1-2 hours, accounting for 38.1% of the total, in the distribution of the periods in which the elderly can participate and like to participate in Recreational sports and physical education, the morning is the most popular period, with a participation rate of 84.524% in both, in terms of the number of days per week to participate in Recreational In terms of the number of days of participation in Recreational sports per week, 38.10% of the elderly were able to participate for three to four days. This reflects the fact that this group has a certain amount of Recreational time in their daily lives, and that they are willing to participate in Recreational sports and physical activities, with the morning being the most popular time slot.

4.1.6 Frequency Analysis of Content Selection

for Recreational Sports Programs

Table 6 Frequency analysis of content selection for recreational sports programs

No.	Contents	Options	Frequency (N)	Percentage (%)
28	Please draw a sequential number for the recreational sports that you think are beneficial to participate in the treatment of Elderly depression: (use 1, 2... numbers starting from the most favorable and decreasing in order)	A. Chorus	12	6.49
		B. Musical Instrument Playing	11	6.58
		C. Chinese Calligraphy and Painting	13	6.26
		D. Playing Chess	15	5.05
		E. Making Handicrafts	14	5.13
		F. Indoor Fitness	10	7.51
		G. Yoga for the Elderly	9	8
		H. Playing Table Tennis	6	8.86

No.	Contents	Options	Frequency (N)	Percentage (%)
		I. Taking a Walk	5	9.18
		J. Jogging	2	10.5
		K. Playing Taijiquan	4	9.24
		L. Qigong	3	10.24
		M. Gymnastics	8	8.10
		N. Sword Practice	7	8.12
		O. Square Dancing	1	10.75
		The movements are simple and easy to learn	84	27.01
		Economical	83	26.69
		Following friends' choices	66	21.22
		Nearby sports venues	78	25.08
		A. Chorus	84	9.00
		B. Musical Instrument Playing	26	2.78
		C. Chinese	53	5.68

No.	Contents	Options	Frequency (N)	Percentage (%)
		Calligraphy and Painting		
29	The reasons why you like the recreational sports you participate in are: (Multiple choices allowed)	D. Playing Chess	52	5.57
		E. Making Handicrafts	40	4.29
		F. Indoor Fitness	84	9.00
		G. Yoga for the Elderly	56	6.00
30	What recreational sport do you think is more conducive to the treatment of depression in old age when you participate in? (Multiple choices allowed)	H. Playing Table Tennis	65	6.97
		I. Taking a Walk	67	7.18
		J. Jogging	66	7.07
		K. Playing Taijiquan	75	8.04
		L. Qigong	84	9.00
		M. Gymnastics	75	8.04
		N. Sword Practice	75	8.04
		O. Square Dancing	31	3.32

It can be seen through the analysis of the content of the interviewed groups regarding Recreational sports programs: from the above ranking, it can be seen that elderly patients will choose different types of Recreational sports, and the top-ranked sports such as square dance, jogging, qigong and so on have higher scores on average, in terms of the main reasons for the interviewed elderly patients to participate in Recreational sports, 100.00% of them choose Recreational sports because of “simple and easy to learn movements”, and other factors accounted for basically the same percentage.

According to the selection of Effective Recreational Sports for the Treatment of Elderly Depression by elderly patients, the participation rates of chorus, indoor fitness and qigong all reached 100%, which were not only popular but also highly feasible and adaptable.

4.1.7 Frequency Analysis of Strategy Development Recommendations for Treating Depression in Older Adults through Participation in Recreational Sports

Table 7 Frequency analysis of strategy development recommendations

No.	Contents	Options	Frequency (N)	Percentage (%)
31	The number of days per week you would recommend treating depression through participation in recreational sports are:	1-2 days	19	22.62
		3-4 days	32	38.10
		5-6 days	18	21.43
		7 days	15	17.86

No.	Contents	Options	Frequency (N)	Percentage (%)
32	The amount of time per day that you would recommend treating depression by participating in recreational sports is:	Less than 1 hour	19	22.62
		1-2 hours	32	38.10
		2-3 hours	18	21.43
		More than 3 hours	15	17.86
33	The area you suggest needs improvement in developing strategies for treating depression through participation in recreational sports is: (Multiple choice)	Requirements for sports venues	47	18.43
		Requirements for instructors	65	25.49
		Requirements for improvement of sports programs	70	27.45

No.	Contents	Options	Frequency (N)	Percentage (%)
		Requirements for government funding subsidies	73	28.63
		Requirements on the size of sports venues	71	28.06
		Requirements on the ease of transportation to sports venues	68	26.88
		Requirements for safety at sports venues	69	27.27
34	The aspects of the requirements for sports venues that you suggest need to be improved in developing strategies are: (Multiple choices allowed)	Requirements for facilities at sports venues	45	17.79
		Requirements on Instructors	52	22.61
		Requirements on patience	59	25.65
		Requirements on sufficient time	54	23.48

No.	Contents	Options	Frequency (N)	Percentage (%)
35	The aspects of the requirements for instructors that you suggest need to be improved in developing strategies are: (Multiple choices allowed)	Requirements on being able to adjust patients' emotions	65	28.26%
		Variety of exercise programs	62	23.85
		Fun	61	23.46
		Interaction between patients	71	27.31
36	What would you suggest as an area for improvement in the development of strategies for the requirements of exercise programs? (Multiple choices allowed)	Innovation	66	25.39

No.	Contents	Options	Frequency (N)	Percentage (%)
37	The area you suggest needs to be improved in the development of strategies for the requirement of government funding subsidies is: (Multiple choice allowed)	Punctuality of funding	64	25.00
		Adequacy of funding	66	25.78
		Flexibility in the placement of funds	70	27.34
		Other	56	21.88

An analysis of the frequency of suggestions for strategy development of the interviewed group regarding the treatment of Elderly depression through participation in recreational sports showed that the most frequent was 38.10% who suggested 3-4 days of exercise per week, in terms of the length of exercise per day, the most frequent was 38.10% who suggested 1-2 hours of exercise.

In terms of the aspects that participants need to improve on their strategies when formulating their strategies, the demand for improvement of exercise programs (83.33%) and the need for government funding subsidies (86.91%) were most prominent, indicating that the current exercise programs may not be able to fully meet the needs of the elderly population, and that there is a problem of insufficiently rich program settings or insufficient adaptability. Insufficient financial support is also a major obstacle, and the elderly expect more government subsidies to reduce the cost of participating in sports and enhance the sustainability of sports. 77.38% have higher requirements for instructors, finally, 55.95% have requirements for sports venues.

Formulating strategies for the requirements of sports venues, the participants believed that the area of sports venues (84.52%) and safety (82.14%) gained the highest level of attention, indicating that the participants were more concerned about whether the sports venues could meet the requirements of the area needed for the venues of their preferred recreational sports, and were also very concerned about the safety of the sports environment.

Developing strategies, 77.38% of the participants believed that instructors need to have the ability to adjust the patient's emotions, and that during the exercise process, instructors not only need to teach motor skills, but also need to pay attention to the emotional state of the participants and provide psychological support to help alleviate depressive symptoms.

Developing strategies, in terms of exercise programs for Elderly depression, interactivity between patients (84.52%) was the element that participants paid the most attention to, indicating the importance of social interaction in enhancing the emotional and psychological well-being of the elderly.

In terms of the requirements for government funding subsidies when formulating strategies, the flexible and variable placement of funds (83.33%) was the most important, and participants hoped that the government would adjust the distribution of funds according to the actual needs and circumstances in order to better respond to the changes and special needs of different programs.

4.2 Summary of questionnaire results

Based on the analysis of the questionnaire results, the following factors were summarized:

(1) From the analysis of the basic information of the interviewed groups, there may be a correlation between the increase in age and the severity of depressive symptoms, with the more the age increases, the more the severity of depressive symptoms increases. In terms of the type of work, the farmer group may be at greater risk of depression. In terms of the nature of the housing in which they live, there is a higher risk of depression among those who live in institutions.

(2) Elderly people's evaluation of their health status, nutritional status and sleep status showed a strong negative correlation with symptoms of depression, and a decline in the quality of sleep may directly lead to more severe depressive symptoms, while poor health and nutrition are also closely related to depressive mood.

(3) By analyzing the depressive situation of the respondents, 77.38% of them reported moderate depressive symptoms. This indicates that depressive symptoms are quite common and more severe in this group. Knowledge of recreational sports programs and related instructors used to treat depression in older adults is underappreciated for people with moderate to severe depression.

(4) The main source of depression is economic reasons, and the psychological stress of the elderly group is closely related to their living conditions.

(5) In order to cope with the symptoms of depression, 67.86% of the people chose to take medication, while fewer chose to take the initiative to participate in recreational sports.

(6) The percentage of those who really have an in-depth understanding of exercise therapy is low when analyzed by the level of knowledge about the contents and programs of Recreational sports and their role in the treatment of depression in the elderly. At the same time, the degree of understanding of the content and programs of recreational sports among the elderly was also significantly negatively correlated with depressive symptoms. Elderly depressed patients' knowledge and understanding of recreational sports play a positive role in reducing depressive symptoms.

(7) In the distribution of time slots for older adults' participation in recreational sports, morning was the most popular time slot.

Most of the elderly preferred to do sports activities in the morning, when the temperature is favorable, the air quality is better, and the elderly are more energetic.

(8) There are significant differences in the therapeutic effects of different types of recreational sports on depression in the elderly. The top-ranked sports such as square dancing, jogging and qigong have higher average scores, indicating that they have more significant improvement effects on Elderly depression. Most of these exercises are characterized by low intensity, sustainability and social interaction, which help promote physical health and psychological relief in the elderly. In particular, square dancing and qigong also involve the interaction of a larger group of people, which increases the sense of social participation and

emotional support. In contrast, lower-ranked activities such as playing chess and making handicrafts scored relatively low. While these activities can help older adults maintain their mental activity and hands-on skills, they may not be as effective in alleviating depression as the more physically active programs due to their less social interaction and less intense physical

activity. Overall, activities with high social interaction and moderate exercise, such as square dancing, jogging and qigong, are better able to help older adults alleviate depression.

(9) The most important reasons for the interviewed elderly patients to participate in recreational sports were simple and easy to learn movements, affordability, following friends' choices and proximity to sports venues in similar proportions.

(10) According to the selection of effective Recreational sports for the treatment of Elderly depression, chorus, indoor fitness and qigong, and square dance are not only popular, but also have high feasibility and adaptability. Chorus and square dance provide emotional support and social interaction for elderly patients, which can enhance the sense of belonging of the elderly, thus effectively alleviating loneliness and depressive symptoms. Exercises such as qigong and tai chi, on the other hand, combine the dual efficacy of physical and mental coordination and enhancement of self-regulation, thus alleviating mood fluctuations.

(11) Increasing the amount of time spent on Recreational activities can help alleviate depression in the elderly. Through more Recreational time, older adults can have the opportunity to engage in social and physical activities, which help to enhance their sense of well-being and quality of life.

(12) Older adults with depression perceive important effects on reducing depressive symptoms in terms of time spent on Recreational sports, requirements for sports venues, instructors, sports programs, and financial subsidies.

(13) When developing strategies regarding time, most of the respondents suggested moderate frequency and duration of exercise, with 1-2 hours of exercise per day being optimal, believing that moderate exercise can alleviate depression while avoiding excessive fatigue.

(14) Participants' demand for government funding subsidies (86.91%) was the most prominent, with older adults expecting more government subsidies to reduce the cost of participating in sports and enhance the sustainability of sports.

(15) 55.95% of the participants had demands for sports venues, indicating that the convenience and availability of sports facilities are also important factors in increasing sports participation.

(16) 77.38% of the participants had high requirements for instructors, reflecting that Specialist sports instruction plays an important role in promoting recreational sports for the elderly.

(17) Participants' demand for improvement of sports programs (83.33%) indicates that current sports programs may not fully meet the needs of the elderly population, and there is a problem of insufficiently rich program settings or insufficient adaptability. Older people would like to try new forms of sports to keep the freshness so that the participation rate can be further increased.

4.3 Specialists' suggestions from Interview

4.3.1 Specialists' opinions and suggestions on strategy development and promotion from interview.

In order to better develop Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong Specialists from different relevant fields were used to analyze and evaluate the environmental situation of the strategies, which included:

- 
- (1) Sports rehabilitation physician
 - (2) Psychiatrist
 - (3) Chinese medicine practitioner
 - (4) Community Health General Practitioner
 - (5) Staff of elderly associations
 - (6) Staff of elderly welfare departments
 - (7) Staff of community administration departments
 - (8) Staff of sports associations
 - (9) CEO of elderly enterprises
 - (10) Exercise instructors
 - (11) Family members of elderly depression patients

Specialists' opinions and suggestions on strategy development and promotion from Semi-structured Interview.:

1. In the formulation of the strategy, the most urgent task and content of consideration for rehabilitation doctors should be to formulate as soon as possible an exercise guide suitable for use by elderly patients with depression when they

engage in recreational sports. Because with the guidelines, both the relevant instructors and elderly patients, a scientific basis for reference. (Specialist (1), May 2nd, 2024)

2. Many ethnic traditional sports programs are suitable for the treatment of elderly patients with depression. For example, Tai Chi and Qigong are considered to be the most effective in helping to improve cognitive ability in the elderly, as they both belong to the category of exercises that work by soothing and controlling emotions, incorporate meditation, breathing and relaxation techniques, and emphasize the integration of the body and mind and spirit, which is in common with the therapeutic principle of reducing the symptoms of elderly patients with depression. (Specialist (2), May 2nd, 2024)

3. Guangdong Province is a large province of Chinese medicine, and the elderly also generally prefer Chinese medicine treatment. When developing strategies, traditional sports programs in the province can be combined, such as qigong and tai chi exercises as the preferred programs, as these sports have a deep public opinion base among the elderly patients. (Specialist (3), May 2nd, 2024)

4. The development of a strategy for Recreational sports for elderly patients with depression should be considered from various aspects in order to be a complete strategy, e.g., a variety of elements of the strategy can be designed from the scope of the site area of the sports, the safety requirements, the quality of the instructors, and the variety of the activity programs. (Specialist (4), May 2nd, 2024)

5. In formulating the strategy, the scientific arrangement for the allocation of financial subsidies should be strengthened, and the different needs of urban and rural elderly patients, as well as the characteristics of urban and rural

land resources and planning should be fully considered. Only by facing up to the differences between urban and rural areas, the strategy will be more in line with the needs of the elderly patients and will better reflect the completeness and scientific of the strategy. (Specialist (5), May 2nd, 2024)

6. With the development of the economy, the requirements and expectations of elderly patients for recreational sports will become higher, and to achieve the expected results, it is necessary to subsidize the act of funding more accurate and in place. At the same

time, the need for the area of the elderly patients' sports space also relies on the adequacy and punctuality of the subsidized funds, such as the cost of the daily use of the community elderly sports center. (Specialist (6), May 3rd, 2024)

7. The need for elderly depressed patients to engage in Recreational sports is incorporated into the community service system, and the service system for elderly depressed patients to engage in Recreational sports is constructed around many aspects such as community services, old age protection, financial support, medical care, legal aid, and so on. (Specialist (7), May 3rd, 2024)

8. China has always been a populous country, the per capita land occupation rate is very low, and the per capita sports area is even lower. How to maintain a balance between economic development and the well-being of the people at the same time? One of the important markers is the proper ratio of land use. For example, when the government sells land, it should at the same time require that real estate developers reserve a certain amount of space for sports in their building plans to support recreational sports for the elderly. (Specialist (8), May 3rd, 2024)

9. The material foundation determines the superstructure. To develop recreational sports for the elderly with depression, it is necessary to increase the economic input. This requires us to expand publicity and arouse social concern, as well as coordination and support from financial departments, civil affairs departments, and sports departments, and to use various means (e.g., taxation, welfare, policy support, etc.) to actively attract enterprises to intervene, so as to expand financing channels. (Specialist (9), May 3rd, 2024)

10. At present, there is a lack of Specialist instructors for our elderly patients with depression to engage in recreational sports. Despite the fact that China has a long history of specializing in sports, there is no Specialist instructor who can cater to the physiological and psychological characteristics of these patients. Elderly patients with depression must be given scientific guidance and arrangements because of the deterioration of their bodily functions and the loneliness and loss of their psychology, which require them to adopt a unique and specialized exercise method. (Specialist (10), May 3rd, 2024)

11. The existing sports venues in China, 549,654 are located in schools, accounting for

67.7 per cent of the country's total number of sports venues, and 75,033 are located in the courtyards of organizations, enterprises, and institutions, accounting for 9.2 per cent of the country's total number of sports venues. These places can make use of staggered hours and become venues for Recreational sports for the elderly in schools or in the courtyards of buildings of organs, enterprises, and institutions after classes or work. Therefore, it should be coordinated by the relevant government departments to integrate and utilize the resources of school

sports venues, and to increase the opening of school venues to the community and the support of Recreational sports for elderly patients. (Specialist (11), May 3rd, 2024)

4.4 Analysis from Questionnaire and Interview

4.4.1 Analysis from Questionnaire

(1) From the analysis of the basic information of the interviewed groups, there may be a correlation between the increase in age and the severity of depressive symptoms, with the more the age increases, the more the severity of depressive symptoms increases. In terms of the type of work, the farmer group may be at greater risk of depression. In terms of the nature of the housing in which they live, there is a higher risk of depression among those who live in institutions.

(According analysis, (1) is about Recreational Sport Time.)

(2) Elderly people's evaluation of their health status, nutritional status and sleep status showed a strong negative correlation with symptoms of depression, and a decline in the quality of sleep may directly lead to more severe depressive symptoms, while poor health and nutrition are also closely related to depressive mood.

(According analysis, (2) is about basic information note.)

(3) By analyzing the depressive situation of the respondents, 77.38% of them reported moderate depressive symptoms. This indicates that depressive symptoms are quite common and more severe in this group. Knowledge of

recreational sports programs and related instructors used to treat depression in older adults is underappreciated for people with moderate to severe depression.

(According analysis, (3) is about Recreational Sports Instructors, Recreational Sports Programs.)

(4) The main source of depression is economic reasons, and the psychological stress of the elderly group is closely related to their living conditions.

(According analysis, (4) is about Financial Subsidies.)

(5) In order to cope with the symptoms of depression, 67.86% of the people chose to take medication, while fewer chose to take the initiative to participate in recreational sports.

(According analysis, (5) is about Financial Subsidies.)

(6) The percentage of those who really have an in-depth understanding of exercise therapy is low when analyzed by the level of knowledge about the contents and programs of Recreational sports and their role in the treatment of depression in the elderly. At the same time, the degree of understanding of the content and programs of recreational sports among the elderly was also significantly negatively correlated with depressive symptoms. Elderly depressed patients' knowledge and understanding of recreational sports play a positive role in reducing depressive symptoms.

(According analysis, (6) is about Recreational Sports Programs.)

(7) In the distribution of time slots for older adults' participation in recreational sports, morning was the most popular time slot. Most of the elderly

preferred to do sports activities in the morning, when the temperature is favorable, the air quality is better, and the elderly are more energetic.

(According analysis, (7) is about Recreational Sport Time.)

(8) There are significant differences in the therapeutic effects of different types of recreational sports on depression in the elderly. The top-ranked sports such as square dancing, jogging and qigong have higher average scores, indicating that they have more significant improvement effects on Elderly depression. Most of these exercises are characterized by low intensity, sustainability and social interaction, which help promote physical health and psychological relief in the elderly. In particular, square dancing and qigong also involve the interaction of a larger group of people, which increases the sense of social participation and emotional support. In contrast, lower-ranked activities such as playing chess and making handicrafts scored relatively low. While these activities can help older adults maintain their mental activity and hands-on skills, they may not be as effective in alleviating depression as the more physically active programs due to their less social interaction and less intense physical activity. Overall, activities with high social interaction and moderate exercise, such as square dancing, jogging and qigong, are better able to help older adults alleviate depression.

(According analysis, (8) is about Recreational Sports Programs.)

(9) The most important reasons for the interviewed elderly patients to participate in recreational sports were simple and easy to learn movements, affordability, following friends' choices Specialist instructors to organize and guide the relevant sports and proximity to sports venues in similar proportions.

(According analysis, (9) is about Financial Subsidies, Recreational Sports Venues, Recreational Sports Instructors, Recreational Sports Programs)

(10) According to the selection of effective Recreational sports for the treatment of Elderly depression, chorus, indoor fitness and qigong, and square dance are not only popular, but also have high feasibility and adaptability. Chorus and square dance provide emotional support and social interaction for elderly patients, which can enhance the sense of belonging of the elderly, thus effectively alleviating loneliness and depressive symptoms. Exercises such as qigong and tai chi, on the other hand, combine the dual efficacy of physical and mental coordination and enhancement of self-regulation, thus alleviating mood fluctuations.

(According analysis, (10) is about Recreational Sports Programs.)

(11) Increasing the amount of time spent on Recreational activities can help alleviate depression in the elderly. Through more Recreational time, older adults can have the opportunity to engage in social and physical activities, which help to enhance their sense of well-being and quality of life.

(According analysis, (11) is about Recreational Sport Time.)

(12) Older adults with depression perceive important effects on reducing depressive symptoms in terms of time spent on Recreational sports, requirements for sports venues, instructors, sports programs, and financial subsidies.

(According analysis, (12) is about Financial Subsidies, Recreational Sports Venues, Recreational Sports Instructors, Recreational Sports Programs, Recreational Sport Time.)

(13) When developing strategies regarding time, most of the respondents suggested moderate frequency and duration of exercise, with 1-2 hours of exercise per day being optimal, believing that moderate exercise can alleviate depression while avoiding excessive fatigue.

(According analysis, (13) is about Recreational Sport Time.)

(14) Participants' demand for government funding subsidies (86.91%) was the most prominent, with older adults expecting more government subsidies to reduce the cost of participating in sports and enhance the sustainability of sports.

(According analysis, (14) is about Financial Subsidies.)

(15) 55.95% of the participants had demands for sports venues, indicating that the convenience and availability of sports facilities are also important factors in increasing sports participation.

(According analysis, (15) is about Recreational Sports Venues.)

(16) 77.38% of the participants had high requirements for instructors, reflecting that Specialist sports instruction plays an important role in promoting recreational sports for the elderly.

(According analysis, (16) is about Recreational Sports Instructors.)

(17) Participants' demand for improvement of sports programs (83.33%) indicates that current sports programs may not fully meet the needs of the elderly population, and there is a problem of insufficiently rich program settings or insufficient adaptability. Older people would like to try new forms of sports to maintain their freshness so that the participation rate can be further increased.

(According analysis, (17) is about Recreational Sports Programs.)

Conclusion: Based on the above division, the data is summarized in table form as follows:

Table 8 Result from Questionnaires

No.	Content	NO.	Content
1	Recreational Sport Time	11	Recreational Sport Time
2	basic information note	12	Financial Subsidies
3	Recreational Sports Instructors	12	Recreational Sports Venues
3	Recreational Sports Programs	12	Recreational Sports Instructors
4	Financial Subsidies	12	Recreational Sports Programs
5	Financial Subsidies	12	Recreational Sport Time
6	Recreational Sports Programs	13	Recreational Sport Time
7	Recreational Sport Time	14	Financial Subsidies
8	Recreational Sports Programs	15	Recreational Sports Venues
9	Financial Subsidies	16	Recreational Sports Instructors
9	Recreational Sports Venues	17	Recreational Sports Programs
9	Recreational Sports Instructors		
9	Recreational Sports Programs		
10	Recreational Sports Programs		

4.4.2 Analysis from Specialists' opinions and suggestions Interview.

1. In the formulation of the strategy, the most urgent task and content of consideration for rehabilitation doctors should be to formulate as soon as possible

an exercise guide suitable for use by elderly patients with depression when they engage in recreational sports. Because with the guidelines, both the relevant instructors and elderly patients, have a scientific basis for reference.

(According to analysis, (1) is about Recreational Sport Time.)

2. There are many ethnic traditional sports programs that are suitable for the treatment of elderly patients with depression. For example, Tai Chi and Qigong are considered to be the most effective in helping to improve cognitive ability in the elderly, as they both belong to the category of exercises that work by soothing and controlling emotions, incorporate meditation, breathing and relaxation techniques, and emphasize the integration of the body and mind and spirit, which is in common with the therapeutic principle of reducing the symptoms of elderly patients with depression.

(According to analysis, (2) is about Recreational Sports Programs.)

3. Guangdong Province is a large province of Chinese medicine, and the elderly also generally prefer Chinese medicine treatment. When developing strategies, traditional sports programs in the province can be combined, such as qigong and tai chi exercises as the preferred programs, as these sports have a deep public opinion base among the elderly patients.

(According to analysis, (3) is about Recreational Sports Programs.)

4. The development of a strategy for Recreational sports for elderly patients with depression should be considered from various aspects in order to be a complete strategy, e.g., a variety of elements of the strategy can be designed from the scope of the site area of the sports, the safety requirements, the quality of the

instructors, and the variety of the activity programs. (According to analysis, (4) is about Recreational Sports Venues, Recreational Sports

Instructors, Recreational Sports Programs.)

5. In formulating the strategy, the scientific arrangement for the allocation of financial subsidies should be strengthened, and the different needs of urban and rural elderly patients as well as the characteristics of urban and rural land resources and planning, should be fully considered. Only by facing up to the differences between urban and rural areas, the strategy will be more in line with the needs of the elderly patients and will better reflect the completeness and scientific of the strategy.

(According to analysis, (5) is about Financial Subsidies.)

6. With the development of the economy, the requirements and expectations of elderly patients for recreational sports will become higher, and to achieve the expected results, it is necessary to subsidize the act of funding more accurate and in place. At the same time, the need for the area of the elderly patients' sports space also relies on the adequacy and punctuality of the subsidized funds, such as the cost of the daily use of the community elderly sports center.

(According to analysis, (6) is about Financial Subsidies.)

7. The need for elderly depressed patients to engage in Recreational sports is incorporated into the community service system, and the service system for elderly depressed patients to engage in Recreational sports is constructed around many aspects such as community services, old age protection, financial support, medical care, legal aid, and so on.

(According to analysis, (7) is about Financial Subsidies.)

8. China has always been a populous country, the per capita land occupation rate is very low, and the per capita sports area is even less. How to maintain a balance between economic development and the well-being of the people at the same time? One of the important markers is the proper ratio of land use. For example, when the government sells land, it should at the same time require that real estate developers must reserve a certain amount of space for sports in their building plans to support recreational sports for the elderly.

(According to analysis, (8) is about Recreational Sports Venues.)

9. The material foundation determines the superstructure. To develop recreational sports for the elderly with depression, it is necessary to increase the economic input. This requires us to expand publicity and arouse social concern, as well as coordination and support from financial departments, civil affairs departments and sports departments, and to use various means (e.g., taxation, welfare, policy support, etc.) to actively attract enterprises to intervene, so as to expand financing channels.

(According to analysis, (9) is about Financial Subsidies.)

10. At present, there is a lack of Specialist instructors for our elderly patients with depression to engage in recreational sports. Despite the fact that China has a long history of specializing in sports, there is no Specialist instructor who can cater to the physiological and psychological characteristics of these patients. Elderly patients with depression must be given scientific guidance and arrangements because of the deterioration of their bodily functions and the loneliness and loss of

their psychology, which require them to adopt a unique and Specialist exercise method.

(According to analysis, (10) is about Recreational Sports Instructors.)

11. The existing sports venues in China, 549,654 are located in schools, accounting

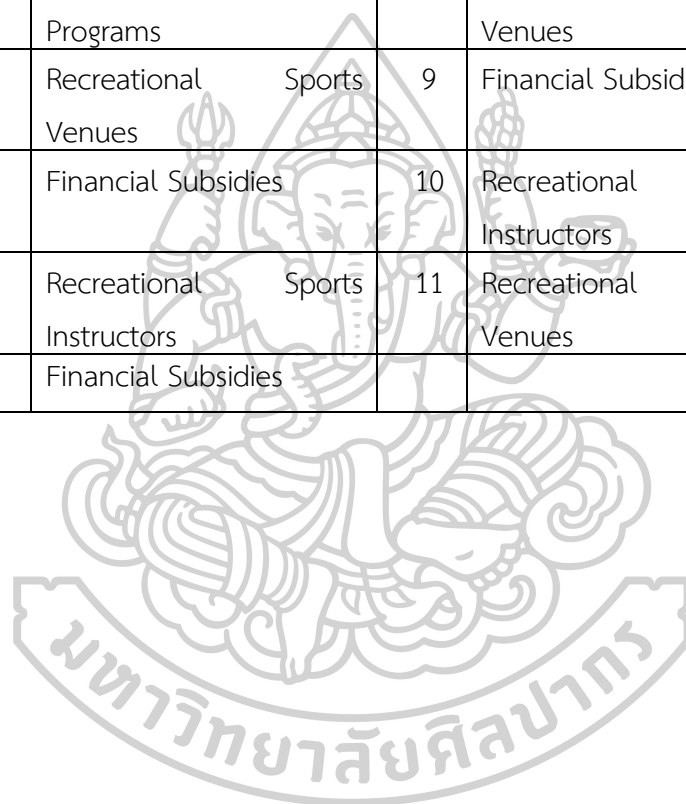
for 67.7 percent of the country's total number of sports venues, and 75,033 are located in the courtyards of organizations, enterprises and institutions, accounting for 9.2 percent of the country's total number of sports venues. These places can make use of staggered hours and become venues for Recreational sports for the elderly in schools or in the courtyards of buildings of organs, enterprises and institutions after classes or work. Therefore, it should be coordinated by the relevant government departments to integrate and utilize the resources of school sports venues, and to increase the opening of school venues to the community and the support of Recreational sports for elderly patients.

(According to analysis, (11) is about Recreational Sports Venues.)

Conclusion: Based on the above division, the data is summarized in tabular form as follows:

Table 9 Result from Interviews

No.	Content	No.	Content
1	Recreational Sport Time	6	Financial Subsidies
2	Recreational Sports Programs	7	Financial Subsidies
3	Recreational Sports Programs	8	Recreational Sports Venues
4	Recreational Sports Venues	9	Financial Subsidies
4	Financial Subsidies	10	Recreational Sports Instructors
4	Recreational Sports Instructors	11	Recreational Sports Venues
5	Financial Subsidies		



4.4.3 Aggregate of data from questionnaires and interviews

According to the above analysis, the following five components of the “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” are obtained:

- (1) Financial Subsidies
- (2) Recreational Sports Venues
- (3) Recreational Sports Instructors
- (4) Recreational Sports Programs
- (5) Recreational Sport Time

4.4.4 SWOT analysis from Interview 11 People.

After obtaining five components of the “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”, 11 specialists were invited to conduct a SWOT analysis with Interview 11 People, which included:

- (1) Sports rehabilitation physician
- (2) Psychiatrist
- (3) Chinese medicine practitioner
- (4) Community Health General Practitioner
- (5) Staff of elderly associations
- (6) Staff of elderly welfare departments

- (7) Staff of community administration departments
- (8) Staff of sports associations
- (9) CEO of elderly enterprises
- (10) Exercise instructors
- (11) Family members of elderly depression patients

SWOT Analysis:

1. What are the Strengths (S), Weaknesses (W), Opportunities (O) and Threats (T) of the financial subsidies?

Strengths (S):

(S1) The central government, administrative units at all levels, and various departments of gerontological affairs cooperate fully to formulate and implement subsidy policies in a more timely and adequate manner. (Specialist (6), May 3rd, 2024)

(S2) The source of funding subsidies is relatively stable. (Specialist (7), May 3rd, 2024)

Weaknesses (W):

(W1) There is a single sector of subsidy. (Specialist (6), May 3rd, 2024)

(W2) There is a lack of non-government financial sources for subsidies. (Specialist (7), May 3rd, 2024)

Opportunities (O):

(O1) The state is gradually recognizing that the economic effects that follow prevention and treatment of recreational sports can directly reduce health care expenditures for elderly depression (Specialist (1), May 2nd, 2024)

(O2) The State has begun to increase its efforts to guide and support the income of various organizations and enterprises in society through the participation in the elderly care business or the sponsorship of Recreational sports competitions for the elderly and other related financial subsidies. (Specialist (9), May 3rd, 2024)

Threats (T):

(T1) The state and the government do not pay enough attention to Recreational sports for the elderly, the government's financial investment is too small, and there is a lack of funds for the development of sports for the elderly, which is even more insufficient when it comes to the treatment of elderly patients with depression. (Specialist (4), May 2nd, 2024)

(T2) The management of subsidies by government departments is not scientific, and there is no distinction between urban and rural areas in the distribution of subsidies. (Specialist (5), May 2nd, 2024)

2. What are the Strengths (S), Weaknesses (W), Opportunities (O) and Threats (T) of recreational sports venues?

Strengths (S):

(S1) The standard of the sports ground provided to elderly depressed patients for Recreational sports is based on the main requirements of personal safety assurance and availability of supporting facilities, and not on the primary requirement of vast area, so a small conference room of a social rehabilitation center can meet the Recreational sports needs of the elderly. Such as chorus, handmade, indoor senior yoga and so on. (Specialist (11), May 3rd, 2024)

(S2) China has always had a traditional social environment of national fitness, so every community, every large residential area, every village and town have set up a certain number of venues for conducting recreational sports, and these venues also try to meet the needs of venues for the elderly with depression. (Specialist (6), May 3rd, 2024)

Weaknesses (W)

(W1) Although every community, every large residential area, every village and town has a certain number of venues for recreational sports, due to the different nature of the property rights belonging to them, the economic influence of the main unit, and the economic downturn in recent years, the various sports venues are in a dilapidated or dilapidated condition and even have hidden safety hazards. (Specialist (7), May 3rd, 2024)

(W2) Some of the recreational sports to alleviate the symptoms of Elderly depression require open-air, large-scale and nearby sports venues, which are indeed difficult to meet the needs in urban areas where land resources are extremely valuable. For example, tai chi, qigong, jogging, and so on. (Specialist (8), May 3rd, 2024)

(W3) Due to the reason of economic growth, it has become common for families in China to own family cars, and the difficulty of parking has become a social disturbing factor. A large number of recreational and sports venues have been destroyed or converted into parking lots without authorization, thus losing the social function of sports venues. (Specialist (5), May 2nd, 2024)



Opportunities (O):

(O1) As early as 2014, Several Opinions of the State Council on Accelerating the Development of the Sports Industry and Promoting Sports Consumption (Guo Fa [2014] No. 46) put forward: the target of 2 square meters of sports ground per capita by 2025. (Specialist (6), May 3rd, 2024)

(O2) In order to address the lack of space for sports activities, the State General Administration of Sport and the Development and Reform Commission jointly issued the Action Plan to Further Promote Sports Consumption (2019-2020) in January 2019. The plan states that parks, green spaces, vacant urban sites, building rooftops, basements, and other areas should be fully and reasonably utilized to build recreational and sports facilities for the elderly, and to continually meet the need for sports venues for the elderly. (Specialist (7), May 3rd, 2024)

(O3) On this basis, the General Office of the State Council, in the Outline for the Construction of a Strong Sporting Nation issued in September 2019, has seriously proposed to coordinate the construction of fitness venues and facilities for the whole nation, strengthen the construction of venues and facilities such as urban greenways, fitness running tracks, bicycle paths, fitness centers for the whole nation, sports and fitness parks, and community cultural and sports plazas, and to combine them with the comprehensive development and renovation of construction projects for residential, commercial, cultural and recreational areas. , rational use of vacant urban sites, underground space, parks and green spaces, and other measures to continuously work for Recreational and sports venues for the elderly. (Specialist (7), May 3rd, 2024)

Threats (T)

(T1) Although the above policy is geared towards the whole country, there are serious urban-rural differences. In Maoming City, Guangdong Province, for example, the realization rate of planning for recreational and sports venues for the

elderly in townships is significantly higher than that in urban areas, because large cities have to face the problems of scarcity of land and crowded space resulting in insufficient supply of sports venues, leading to the frequent occurrence of elderly depressives jumping up and down in square dances next to the main road. (Specialist (7), May 3rd, 2024)

(T2) With the development of the economy, China began to vigorously develop the real estate economy two decades ago, and all real estate developers take economic interests as their first consideration, resulting in the lack of reasonable design and use of recreational and sports venues for the elderly in various residential areas. (Specialist (8), May 3rd, 2024)

(T3) With the impact of the new coronavirus infection epidemic (Corona Virus Disease 2019, COVID-19) in recent years, problems such as insufficient government attention to the need for recreational and sports spaces for the elderly in urban development planning have also emerged. (Specialist (5), May 2nd, 2024)

3. What are the Strengths (S), Weaknesses (W), Opportunities (O) and Threats (T) of recreational sport instructors?

Strengths (S)

(S1) Recreational sports instructors are able to provide proper guidance to the elderly on relevant physical fitness and movement standards to prevent sports accidents. (Specialist (1), May 2nd, 2024)

(S2) Instructors can play the role of an organizer in conducting recreational sports for the elderly. (Specialist (10), May 3rd, 2024)

Weaknesses (W)

(W1) There is a serious shortage in the number of Specialist instructors suitable to act as recreational sports for depressed older adults. (Specialist (4), May 2nd, 2024)

(W2) There is a lack of expertise among current Specialist instructors in targeting the alleviation of Elderly depression symptoms. (Specialist (1), May 2nd, 2024)

Opportunities (O)

(O1) There are already university physical education faculties that train instructors specializing in exercise therapy. (Specialist (10), May 3rd, 2024)

(O2) The medical schools of some universities have added a course on the treatment of mental illnesses through recreational sports in their medical rehabilitation programs, so that these educated health care workers can take up the role of instructors when they have the relevant knowledge of sports instruction. (Specialist (1), May 2nd, 2024)

Threats (T)

(T1) At present, the number of Specialist instructors trained in our country is insufficient to match the needs of the growing number of elderly patients with depression. (Specialist (2), May 2nd, 2024)

(T2) The salary for hiring Specialist mentors is not sufficient to attract enough mentors. (Specialist (10), May 3rd, 2024)

(T3) The distribution of Specialist instructors is uneven between urban and rural areas and communities. (Specialist (10), May 3rd, 2024)

4. What are the Strengths (S), Weaknesses (W), Opportunities (O) and Threats (T) of the recreational sport program?

Strengths (S):

(S1) There are many ethnic traditional sports programs that are suitable for the treatment of elderly patients with depression. For example, Tai Chi and Qigong are considered to be the most effective in helping to improve cognitive abilities in older adults because they are among the exercises that combine meditation, breathing, and relaxation techniques through soothing and controlling emotions, emphasizing the integration of the body and the mind, which are common to the therapeutic principles of reducing symptoms in elderly patients with depression. (Specialist (2), May 2nd, 2024)

(S2) As the age and experience of elderly depressed patients change, some new recreational sports programs are slowly introduced, and the sports programs are constantly enriched. For example, gate ball, table games, etc. (Specialist (4), May 2nd, 2024)

Weaknesses (W)

(W1) Some recreational sports programs suitable for elderly depressed patients need to have the requirements of being outdoors, larger area, sufficient light, good ventilation, and convenient transportation, and these programs will be difficult to be selected because they are more difficult to meet. (Specialist (11), May 3rd, 2024)

(W2) Sports programs have not kept up with the development of society and are more backward in terms of innovation and use. (Specialist (4), May 2nd, 2024)

Opportunities (O):

(O1) In order to achieve a more effective way to reduce the symptoms of Elderly depression with recreational sports, at present, in China, in the exercise therapy, relevant guidelines have been formulated to recommend the traditional aerobic exercise as the preferred therapeutic exercise modality (e.g., tai chi, qigong, and eight-duan brocade), and has achieved good therapeutic effects and social acceptance. (Specialist (3), May 2nd, 2024)

(O2) With the further development of geriatrics, increasingly new and therapeutic recreational sports programs will be adopted and practiced. (Specialist (4), May 2nd, 2024)

Threats (T)

(T1) A part of the conflict between the ardent needs of elderly depressed people and the current economic or social conditions that cannot be provided for the realization of sports programs which must be accompanied by the

need for excessive external environmental conditions to be met. (Specialist (5), May 2nd, 2024)

(T2) Some of the recreational sports programs have not been modified to meet the physical and mental characteristics of the elderly, and they do not provide treatment for the elderly with depression, and they certainly do not meet the social needs of the elderly. (Specialist (11), May 3rd, 2024)

5. What are the Strengths (S), Weaknesses (W), Opportunities (O) and Threats (T) of recreational sports time?

Strengths (S)

(S1) Regardless of the length of time, recreational sports are pleasurable and reduce depressive symptoms in older depressed individuals. (Specialist (2), May 2nd, 2024)

(S2) The amount of time that depressed older adults spend in Recreational sports can be compared to the amount of time that older adults spend exercising. (Specialist (1), May 2nd, 2024)

Weaknesses (W)

(W1) The effect of Recreational time on reducing depressive symptoms in older adults with depression varies with individual preferences and can be difficult to determine by oneself. (Specialist (2), May 2nd, 2024)

(W2) The appropriate amount of recreational sports time for each geriatric patient with depression needs to be observed, counted, and guided by a sports rehabilitation physician. (Specialist (1), May 2nd, 2024)

Opportunities (O)

(O1) The General Administration of Sport of China has formulated a time guideline for Recreational sports specifically for the elderly, which clearly indicates the suitable time schedule for Recreational sports for the elderly. (Specialist (8), May

3rd, 2024)

(O2) Elderly people in Guangdong Province attach great importance to the meaning of exercise as a means of health maintenance, and follow the theory that exercise should be appropriate and should not be overdone, as this will harm the “vital energy” of the body. (Specialist (3), May 2nd, 2024)

Threats (T)

(T1) At present, there is only a standardized guideline on the duration of recreational exercise for elderly people in general, but there is no guideline on the duration of exercise for elderly people with depression to reduce their depressive symptoms. (Specialist (1), May 2nd, 2024)

(T2) Nor is there a scientific medical finding that combines the three elements of depression level, exercise program chosen, and time required. (Specialist (1), May 2nd, 2024)

4.5 TOWS Analysis

SO: S(Strengths)+O(Opportunities): Play to Strengths and Seize Opportunities. ST:

S(Strengths)+ T(Threats): Utilizing Strengths to Mitigate Threats.

WO: W(Weaknesses) +O(Opportunities): Making up for Weaknesses through Opportunities.

WT: W(Weaknesses) + T(Threats): Addressing Weaknesses to Avoid or Respond to Threats.

1. Financial Subsidies

S: S1(Subsidy Policy), S2(Source of Funding)

W: W1(Single Sector), W2(Lack of non-government subsidy)

O: O1(New treatment of recreational sport), O2(Various organization support)

T: T1(Lack of attention), T2(No distinction)SO:

S	O
<p>S1:</p> <p>(1) The central government, administrative units at all levels, and various departments of gerontological affairs cooperate fully to formulate and implement subsidy policies in a more timely and adequate manner.</p>	<p>O1:</p> <p>(1) The state is gradually recognizing that the economic effects that follow prevention and treatment of recreational sports can directly reduce health care expenditures for elderly depression</p> <p>O2:</p> <p>(2) The State has begun to increase its efforts to guide and support the income of various organizations and enterprises in society through the participation in the elderly care business or the sponsorship of Recreational sports competitions for the elderly and other related financial subsidies.</p>
<p>S2:</p> <p>(2) The source of funding subsidies is relatively stable.</p>	<p>O1:</p> <p>(1) The state is gradually recognizing that the economic effects that follow prevention and treatment of recreational sports can directly reduce health care expenditures for elderly depression</p> <p>O2:</p> <p>(2) The State has begun to increase its efforts to guide and support the income of various organizations and enterprises in society through the participation in</p>

S	O
	the elderly care business or the sponsorship of Recreational sports competitions for the elderly and other related financial subsidies.

SO: S1O1= S1(Subsidy Policy)+ O1(New treatment of recreational sport)

S1O2= S1(Subsidy Policy)+ O2(Various organization support)

S2O1= S2(Source of Funding)+ O1(New treatment of recreational sport)

S2O2= S2(Source of Funding)+ O2(Various organization support)

ST:

S	T
<p>S1:</p> <p>(1) The central government, administrative units at all levels, and various departments of gerontological affairs cooperate fully to formulate and implement subsidy policies in a more timely and adequate manner.</p>	<p>T1:</p> <p>(1) The state and the government do not pay enough attention to Recreational sports for the elderly, the government's financial investment is too small, and there is a lack of funds for the development of sports for the elderly, which is even more insufficient when it comes to the treatment of elderly patients with depression.</p> <p>T2:</p> <p>(2) The management of subsidies by government departments is not scientific, and there is no distinction between urban and rural areas in the distribution of subsidies.</p>

S	T
<p>S2: (2) The source of funding subsidies is relatively stable.</p>	<p>T1: (1) The state and the government do not pay enough attention to Recreational sports for the elderly, the government's financial investment is too small, and there is a lack of funds for the development of sports for the elderly, which is even more insufficient when it comes to the treatment of elderly patients with depression.</p>
	<p>T2: (2) The management of subsidies by government departments is not scientific, and there is no distinction between urban and rural areas in the distribution of subsidies.</p>

ST: S1T1= S1(Subsidy Policy)+ T1(Lack of attention)

S1T2= S1(Subsidy Policy)+ T2(No distinction)

S2T1= S2(Source of Funding)+ T1(Lack of attention)

S2T2= S2(Source of Funding)+ T2(No distinction)

WO:

W	O
<p>W(1):</p> <p>(1) There is a single sector of subsidy.</p>	<p>O1:</p> <p>(1) The state is gradually recognizing that the economic effects that follow prevention and treatment of recreational sports can directly reduce health care expenditures for elderly depression</p> <hr/> <p>O2:</p> <p>(2) The State has begun to increase its efforts to guide and support the income of various organizations and enterprises in society through the participation in the elderly care business or the sponsorship of Recreational sports competitions for the elderly and other related financial subsidies.</p>
<p>W(2):</p> <p>(2) There is a lack of non-government financial sources for subsidies.</p>	<p>O1:</p> <p>(1) The state is gradually recognizing that the economic effects that follow prevention and treatment of recreational sports can directly reduce health care expenditures for elderly depression</p>

W	O
	<p>O2:</p> <p>(2) The State has begun to increase its efforts to guide and support the income of various organizations and enterprises in society through the participation in the elderly care business or the sponsorship of Recreational sports competitions for the elderly and other related financial subsidies.</p>

WO: W1O1= W1(Single Sector)+ O1(New treatment of recreational sport)

W1O2= W1(Single Sector)+ O2(Various organization support)

W2O1= W2(Lack of non-government subsidy)+ O1(New treatment of recreational sport)

W2O2= W2(Lack of non-government subsidy)+ O2(Various organization support)



WT:

W	T
<p>W(1):</p> <p>(1) There is a single sector of subsidy.</p>	<p>T1:</p> <p>(1) The state and the government do not pay enough attention to Recreational sports for the elderly, the government's financial investment is too small, and there is a lack of funds for the development of sports for the elderly, which is even more insufficient when it comes to the treatment of elderly patients with depression.</p>
	<p>T2:</p> <p>(2) The management of subsidies by government departments is not scientific, and there is no distinction between urban and rural areas in the distribution of subsidies.</p>
<p>W(2):</p> <p>(2) There is a lack of non-government financial sources for subsidies.</p>	<p>T1:</p> <p>(1) The state and the government do not pay enough attention to Recreational sports for the elderly, the government's financial investment is too small, and there is a lack of funds for the development of sports for the elderly, which is even more insufficient when it comes to the treatment of elderly patients with depression.</p> <p>T2:</p>

W	T
	(2) The management of subsidies by government departments is not scientific, and there is no distinction between urban and rural areas in the distribution of subsidies.

WT: $W1T1 = W1(\text{Single Sector}) + T1(\text{Lack of attention})$

$W1T2 = W1(\text{Single Sector}) + T2(\text{No distinction})$

$W2T1 = W2(\text{Lack of non-government subsidy}) + T1(\text{Lack of attention})$

$W2T2 = W2(\text{Lack of non-government subsidy}) + T2(\text{No distinction})$



2. Recreational Sports Venues

S: S1 (Availability of supporting facilities),

S2 (Social environment for conducting recreational sports)

W: W1 (Different nature of the property),

W2 (Difficult to meet the needs in urban areas),

W3 (Losing the social function of sport venues)

O: O1 (The State Council promoting sports recreation),

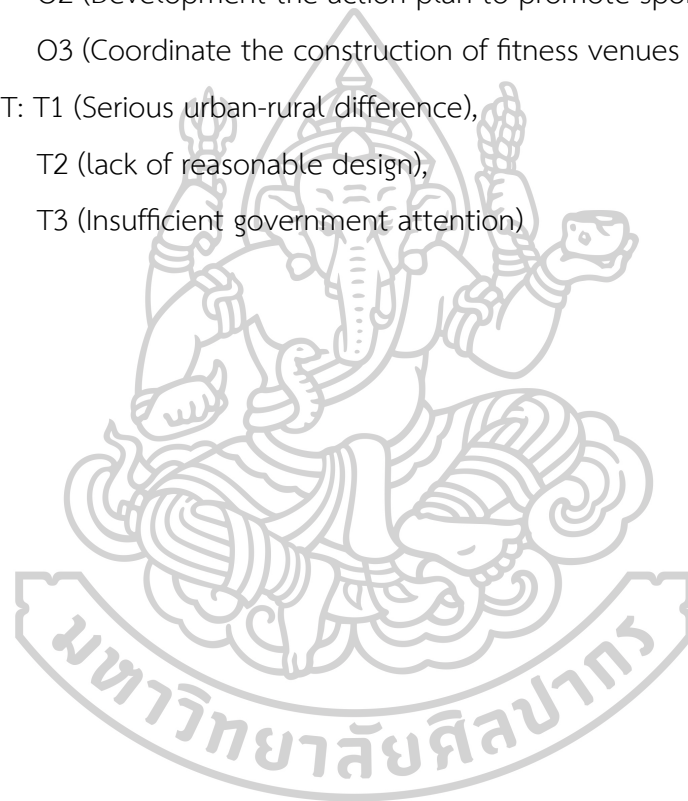
O2 (Development the action plan to promote sport consumption),

O3 (Coordinate the construction of fitness venues and facilities),

T: T1 (Serious urban-rural difference),

T2 (lack of reasonable design),

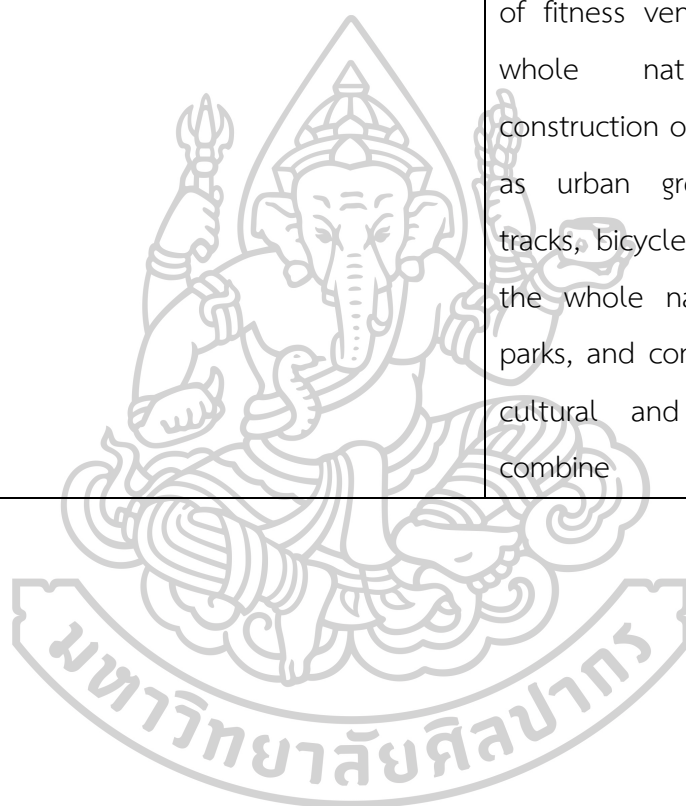
T3 (Insufficient government attention)



SO:

S	O
<p>S(1):</p> <p>(1) The standard of the sports ground provided to elderly depressed patients for Recreational sports is based on the main requirements of personal safety assurance and availability of supporting facilities, and not on the primary requirement of vast area, so a small conference room of a social rehabilitation center can meet the Recreational sports needs of the elderly. Such as chorus, handmade, indoor senior yoga and so on.</p>	<p>O(1):</p> <p>(1) As early as 2014, Several Opinions of the State Council on Accelerating the Development of the Sports Industry and Promoting Sports Consumption (Guo Fa [2014] No. 46) put forward: the target of 2 square meters of sports ground per capita by 2025.</p> <p>O(2):</p> <p>(2) In order to address the lack of space for sports activities, the State General Administration of Sport and the Development and Reform Commission jointly issued the Action Plan to Further Promote Sports Consumption (2019-2020) in January 2019. The plan states that parks, green spaces, vacant urban sites, building rooftops, basements, and other areas should be fully and reasonably utilized to build recreational and sports facilities for the elderly, and to continually meet the need for sports venues for the elderly.</p>

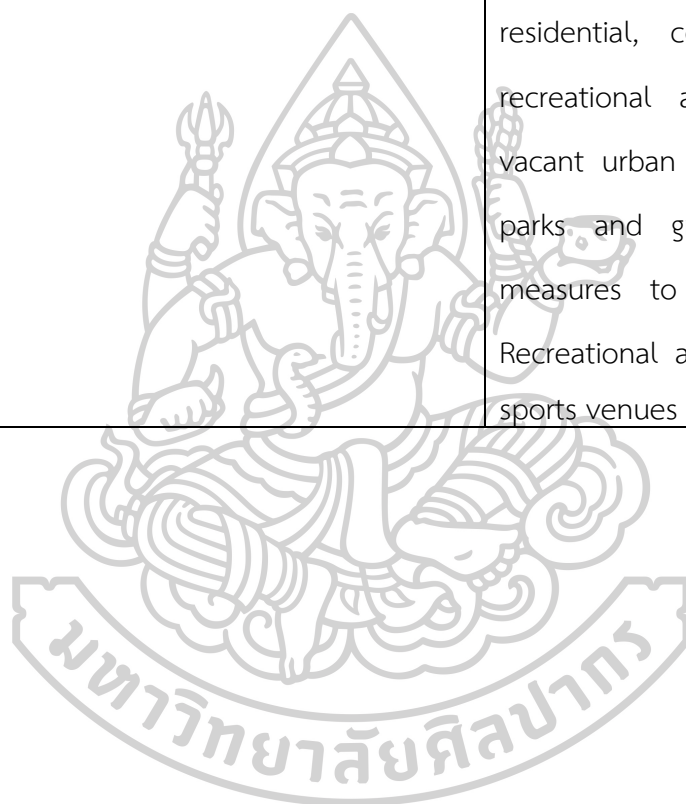
S	O
	<p>O(3):</p> <p>(3) On this basis, the General Office of the State Council, in the Outline for the Construction of a Strong Sporting Nation issued in September 2019, has seriously proposed to coordinate the construction of fitness venues and facilities for the whole nation, strengthen the construction of venues and facilities such as urban greenways, fitness running tracks, bicycle paths, fitness centers for the whole nation, sports and fitness parks, and community cultural and sports plazas, and to combine</p>



S	O
	<p>them with the comprehensive development and renovation of construction projects for residential, commercial, cultural and recreational areas. , rational use of vacant urban sites, underground space, parks and green spaces, and other measures to continuously work for Recreational and sports venues for the elderly.</p>
<p>S(2): (2) China has always had a traditional social environment of national fitness, so every community, every large residential area, every village and town have set up a certain number of venues for conducting recreational sports, and these venues also try to meet the</p>	<p>O(1): (1) As early as 2014, Several Opinions of the State Council on Accelerating the Development of the Sports Industry and Promoting Sports Consumption (Guo Fa [2014] No. 46) put forward: the target of 2 square meters of sports ground per capita by 2025.</p>

S	O
<p>needs of venues for the elderly with depression.</p>	<p>O(2):</p> <p>(2) In order to address the lack of space for sports activities, the State General Administration of Sport and the Development and Reform Commission jointly issued the Action Plan to Further Promote Sports Consumption (2019-2020) in January 2019. The plan states that parks, green spaces, vacant urban sites, building rooftops, basements, and other areas should be fully and reasonably utilized to build recreational and sports facilities for the elderly, and to continually meet the need for sports venues for the elderly.</p>
	<p>O(3):</p> <p>(3) On this basis, the General Office of the State Council, in the Outline for the Construction of a Strong Sporting Nation issued in September 2019, has seriously proposed to coordinate the construction of fitness venues and facilities for the whole nation, strengthen the construction of venues and facilities such as urban greenways, fitness running tracks, bicycle</p>

S	O
	<p>paths, fitness centers for the whole nation sports and fitness parks, and community cultural and sports plazas, and to combine them with the comprehensive development and renovation of construction projects for residential, commercial, cultural and recreational areas. , rational use of vacant urban sites, underground space, parks and green spaces, and other measures to continuously work for Recreational and sports venues for the elderly.,</p>



SO: S1O1=S1(Availability of supporting facilities)+ O1(The State Council promoting sports recreation)

S1O2= S1(Availability of supporting facilities)+ O2(Development the action plan to promote sport consumption)

S1O3= S1(Availability of supporting facilities)+ O3(Coordinate the construction of fitness venues and facilities)

S2O1= S2(Social environment for conducting recreational sports)+ O1(The State Council promoting sports recreation)

S2O2= S2(Social environment for conducting recreational sports)+ O2(Development the action plan to promote sport consumption)

S2O3= S2(Social environment for conducting recreational sports)+ O3(Coordinate the construction of fitness venues and facilities)

ST:

S	T
<p>S(1): (1) The standard of the sports ground provided to elderly depressed patients for Recreational sports is based on the main requirements of personal safety assurance and availability of supporting facilities, and not on the primary requirement of vast area, so a small conference room of a social rehabilitation center can meet the Recreational sports needs of the</p>	<p>T(1): (1) Although the above policy is geared towards the whole country, there are serious urban-rural differences. In Maoming City, Guangdong Province, for example, the realization rate of planning for recreational and sports venues for the elderly in townships is significantly higher than that in urban areas, because large cities have to face the problems of scarcity of land and crowded space</p>

S	T
<p>elderly. Such as chorus, handmade, indoor senior yoga and so on.</p>	<p>resulting in insufficient supply of sports venues, leading to the frequent occurrence of elderly depressives jumping up and down in square dances next to the main road.</p> <p>T(2):</p> <p>(2) With the development of the economy, China began to vigorously develop the real estate economy two decades ago, and all real estate developers take economic interests as their first consideration, resulting in the lack of reasonable design and use of recreational and sports venues for the elderly in various residential areas.</p> <p>T(3):</p> <p>(3) With the impact of the new coronavirus infection epidemic (Corona Virus Disease 2019, COVID-19) in recent years, problems such as insufficient government attention to the need for recreational and sports spaces for the elderly in urban development planning have also emerged.</p>
<p>S(2):</p> <p>(2) China has always had a traditional social environment of national fitness,</p>	<p>T(1):</p> <p>(1) Although the above policy is geared towards the whole country, there are</p>

S	T
<p>so every community, every large residential area, every village and town have set up a certain number of venues for conducting recreational sports, and these venues also try to meet the needs of venues for the elderly with depression.</p>	<p>serious urban-rural differences. In Maoming City, Guangdong Province, for example, the realization rate of planning for recreational and sports venues for the elderly in townships is significantly higher than that in urban areas, because large cities have to face the problems of scarcity of land and crowded space resulting in insufficient supply of sports venues, leading to the frequent occurrence of elderly depressives jumping up and down in square dances next to the main road.</p> <p>T(2): (2) With the development of the economy, China began to vigorously develop the real estate economy two decades ago, and all real estate developers take economic interests as their first consideration, resulting in the lack of reasonable design and use of recreational and sports venues for the elderly in various residential areas.</p>

S	T
	<p>T(3):</p> <p>(3) With the impact of the new coronavirus infection epidemic (Corona Virus Disease 2019, COVID-19) in recent years, problems such as insufficient government attention to the need for recreational and sports spaces for the elderly in urban development planning have also emerged.</p>

ST: S1T1= S1(Availability of supporting facilities)+ T1(Serious urban-rural difference)

S1T2= S1(Availability of supporting facilities)+ T2(lack of reasonable design)

S1T3= S1(Availability of supporting facilities)+ T3(Insufficient government attention)

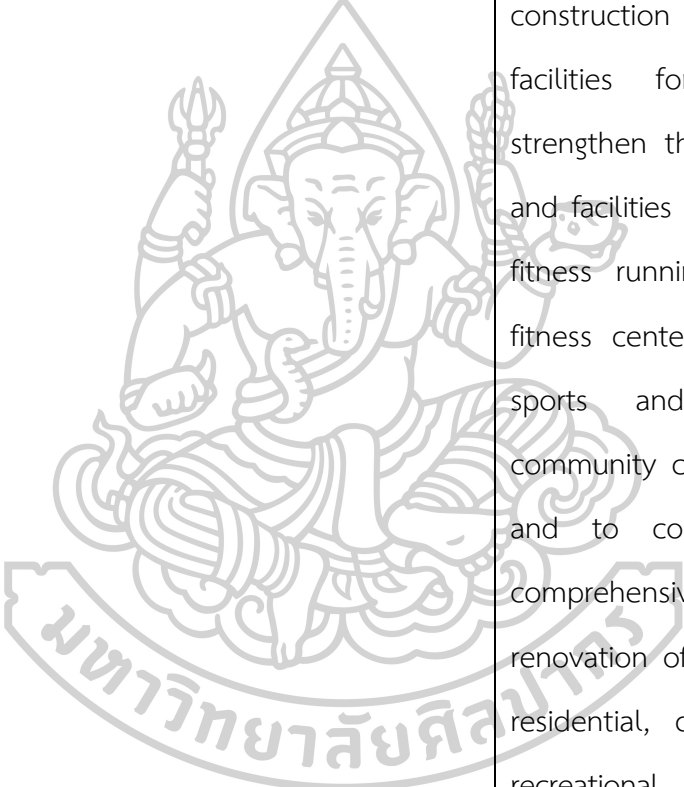
S2T1= S2(Social environment for conducting recreational sports)+ T1(Serious urban-rural difference)

S2T2= S2(Social environment for conducting recreational sports)+ T2(lack of reasonable design)

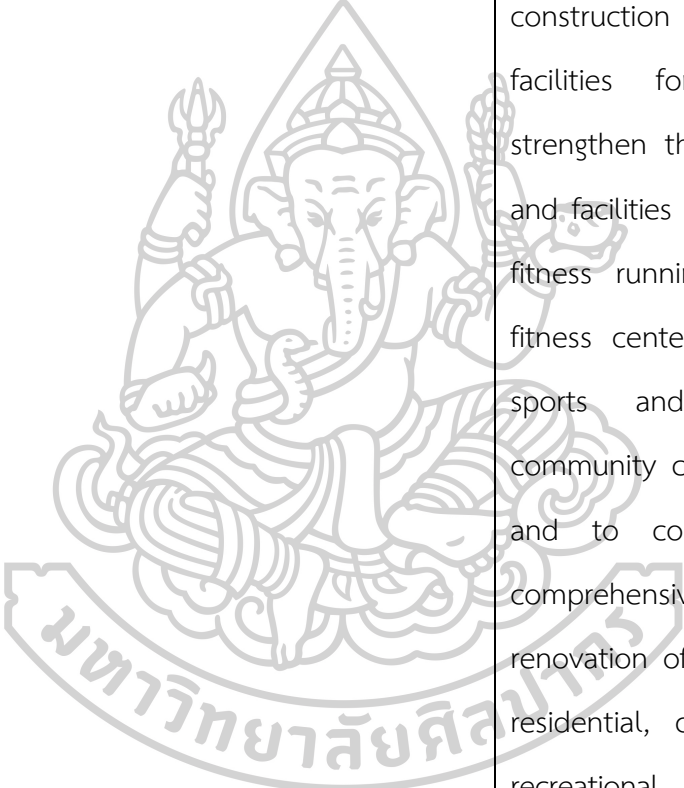
S2T3= S2(Social environment for conducting recreational sports)+T3(Insufficient government attention)

WO:

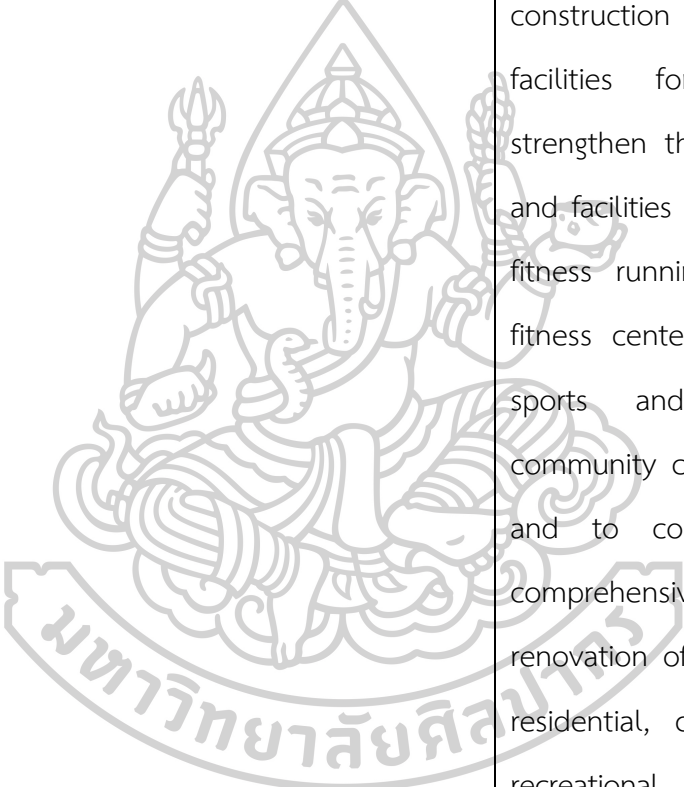
W	O
<p>W(1):</p> <p>(1) Although every community, every large residential area, every village and own has a certain number of venues for recreational sports, due to the different nature of the property rights belonging to them, the economic influence of the main unit, and the economic downturn in recent years, the various sports venues are in a dilapidated or dilapidated condition and even have hidden safety hazards.</p>	<p>O(1):</p> <p>(1) As early as 2014, Several Opinions of the State Council on Accelerating the Development of the Sports Industry and Promoting Sports Consumption (Guo Fa [2014] No. 46) put forward: the target of 2 square meters of sports ground per capita by 2025.</p>
	<p>O(2):</p> <p>(2) In order to address the lack of space for sports activities, the State General Administration of Sport and the Development and Reform Commission jointly issued the Action Plan to Further Promote Sports Consumption (2019-2020) in January 2019. The plan states that parks, green spaces, vacant urban sites, building rooftops, basements, and other areas should be fully and reasonably utilized to build recreational and sports facilities for the elderly, and to continually meet the need for sports venues for the elderly.</p>

W	O
	<p>O(3):</p> <p>(3) On this basis, the General Office of the State Council, in the Outline for the Construction of a Strong Sporting Nation issued in September 2019, has seriously proposed to coordinate the construction of fitness venues and facilities for the whole nation, strengthen the construction of venues and facilities such as urban greenways, fitness running tracks, bicycle paths, fitness centers for the whole nation, sports and fitness parks, and community cultural and sports plazas, and to combine them with the comprehensive development and renovation of construction projects for residential, commercial, cultural and recreational areas. , rational use of vacant urban sites, underground space, parks and green spaces, and other measures to continuously work for Recreational and sports venues for the elderly.</p>

W	O
<p>(2) Some of the recreational sports to alleviate the symptoms of Elderly depression require open-air, large-scale and nearby sports venues, which are indeed difficult to meet the needs in urban areas where land resources are extremely valuable. For example, tai chi, qigong, jogging, and so on.</p>	<p>(1) As early as 2014, Several Opinions of the State Council on Accelerating the Development of the Sports Industry and Promoting Sports Consumption (Guo Fa [2014] No. 46) put forward: the target of 2 square meters of sports ground per capita by 2025.</p> <p>O(2):</p> <p>(2) In order to address the lack of space for sports activities, the State General Administration of Sport and the Development and Reform Commission jointly issued the Action Plan to Further Promote Sports Consumption (2019-2020) in January 2019. The plan states that parks, green spaces, vacant urban sites, building rooftops, basements, and other areas should be fully and reasonably utilized to build recreational and sports facilities for the elderly, and to continually meet the need for sports venues for the elderly.</p>

W	O
	<p>O(3):</p> <p>(3) On this basis, the General Office of the State Council, in the Outline for the Construction of a Strong Sporting Nation issued in September 2019, has seriously proposed to coordinate the construction of fitness venues and facilities for the whole nation, strengthen the construction of venues and facilities such as urban greenways, fitness running tracks, bicycle paths, fitness centers for the whole nation, sports and fitness parks, and community cultural and sports plazas, and to combine them with the comprehensive development and renovation of construction projects for residential, commercial, cultural and recreational areas. , rational use of vacant urban sites, underground space, parks and green spaces, and other measures to</p> <p>continuously work for Recreational and</p>

W	O
	sports venues for the elderly.
<p>W(3):</p> <p>(3) Due to the reason of economic growth, it has become common for families in China to own family cars, and the difficulty of parking has become a social disturbing factor. A large number of recreational and sports venues have been destroyed or converted into parking lots without authorization, thus losing</p>	<p>O(1):</p> <p>(1) As early as 2014, Several Opinions of the State Council on Accelerating the Development of the Sports Industry and Promoting Sports Consumption (Guo Fa [2014] No. 46) put forward: the target of 2 square meters of sports ground per capita by 2025.</p> <p>O(2):</p> <p>(2) In order to address the lack of space for sports activities, the State General Administration of Sport and the Development and Reform Commission jointly issued the Action Plan to Further Promote Sports Consumption (2019-2020) in January 2019. The plan states that parks, green spaces, vacant urban sites, building rooftops, basements, and other areas should be fully and reasonably utilized to build recreational and sports facilities for the elderly, and to continually meet the need for sports venues for the elderly.</p>

W	O
<p>the social function of sports venues.</p> 	<p>O(3):</p> <p>(3) On this basis, the General Office of the State Council, in the Outline for the Construction of a Strong Sporting Nation issued in September 2019, has seriously proposed to coordinate the construction of fitness venues and facilities for the whole nation, strengthen the construction of venues and facilities such as urban greenways, fitness running tracks, bicycle paths, fitness centers for the whole nation, sports and fitness parks, and community cultural and sports plazas, and to combine them with the comprehensive development and renovation of construction projects for residential, commercial, cultural and recreational areas. , rational use of vacant urban sites, underground space, parks</p>

W	O
	and green spaces, and other measures to continuously work for Recreational and sports venues for the elderly.

WO: W1O1= W1(Different nature f the property)+ O1(The State Council promoting sports recreation)

W1O2= W1(Different nature f the property)+ O2(Development the action plan to promote sport consumption)

W1O3= W1(Different nature f the property)+ O3(Coordinate the construction of fitness venues and facilities)

W2O1= W2(Difficult to meet the needs in urban areas) + O1(The State Council promoting sports recreation)

W2O2= W2(Difficult to meet the needs in urban areas) + O2(Development the action plan to promote sport consumption)

W2O3= W2(Difficult to meet the needs in urban areas) + O3 (Coordinate the construction of fitness venues and facilities)

W3O1= W3(Losing the social function of sport venues) + O1(The State Council promoting sports recreation)

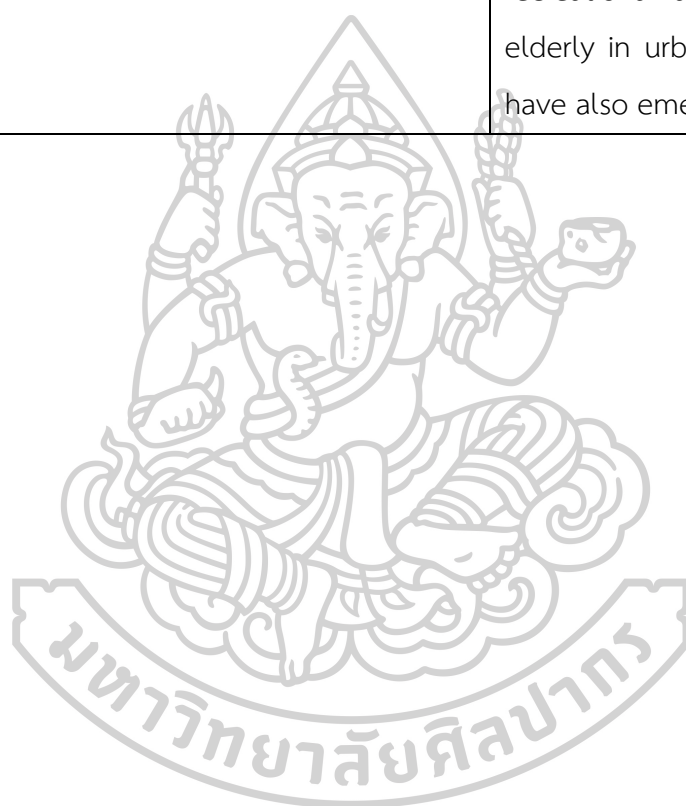
W3O2= W3(Losing the social function of sport venues) + O2(Development the action plan to promote sport consumption)

W3O3= W3(Losing the social function of sport venues) + O3(Coordinate the construction of fitness venues and facilities)

WT:

W	T
<p>W(1):</p> <p>(1) Although every community, every large residential area, every village and town has a certain number of venues for recreational sports, due to the different nature of the property rights belonging to them, the economic influence of the main unit, and the economic downturn in recent years, the various sports venues are in a dilapidated or dilapidated condition, and even have hidden safety hazards.</p>	<p>T(1):</p> <p>(1) Although the above policy is geared towards the whole country, there are serious urban-rural differences. In Maoming City, Guangdong Province, for example, the realization rate of planning for recreational and sports venues for the elderly in townships is significantly higher than that in urban areas, because large cities have to face the problems of scarcity of land and crowded space resulting in insufficient supply of sports venues, leading to the frequent occurrence of elderly depressives jumping up and down in square dances next to the main road.</p>
	<p>T(2):</p> <p>(2) With the development of the economy, China began to vigorously develop the real estate economy two decades ago, and all real estate developers take economic interests as their first consideration, resulting in the lack of reasonable design and use of recreational and sports venues for the elderly in various residential areas.</p>

W	T
	<p>T(3):</p> <p>(3) With the impact of the new coronavirus infection epidemic (Corona Virus Disease 2019, COVID-19) in recent years, problems such as insufficient government attention to the need for recreational and sports spaces for the elderly in urban development planning have also emerged.</p>



W	T
<p>W(2)</p> <p>(2) Some of the recreational sports to alleviate the symptoms of Elderly depression require open-air, large-scale and nearby sports venues, which are indeed difficult to meet the needs in urban areas where land resources are extremely valuable. For example, tai chi, qigong, jogging, and so on.</p>	<p>T(1):</p> <p>(1) Although the above policy is geared towards the whole country, there are serious urban-rural differences. In Maoming City, Guangdong Province, for example, the realization rate of planning for recreational and sports venues for the elderly in townships is significantly higher than that in urban areas, because large cities have to face the problems of scarcity of land and crowded space resulting in insufficient supply of sports venues, leading to the frequent occurrence of elderly depressives jumping up and down in square dances next to the main road.</p>
	<p>T(2):</p> <p>(2) With the development of the economy, China began to vigorously develop the real estate economy two decades ago, and all real estate developers take economic interests as their first consideration, resulting in the lack of reasonable design and use of recreational and sports venues for the</p>

W	T
	elderly in various residential areas.
	<p>T(3):</p> <p>(3) With the impact of the new coronavirus infection epidemic (Corona Virus Disease 2019, COVID-19) in recent years, problems such as insufficient government attention to the need for recreational and sports spaces for the elderly in urban development planning have also emerged.</p>
<p>W(3)</p> <p>(3) Due to the reason of economic growth, it has become common for families in China to own family cars, and the difficulty of parking has become a social disturbing factor. A large number of recreational and sports venues have been destroyed or converted into parking</p>	<p>T(1):</p> <p>(1) Although the above policy is geared towards the whole country, there are serious urban-rural differences. In Maoming City, Guangdong Province, for example, the realization rate of planning for recreational and sports venues for the elderly in townships is significantly</p>

W	T
lots without authorization, thus losing the social function of sports venues.	higher than that in urban areas, because large cities have to face the problems of scarcity of land and crowded space resulting in insufficient supply of sports venues, leading to the frequent occurrence of elderly depressives jumping up and down in square dances next to the main road.
	<p>T(2):</p> <p>(2) With the development of the economy, China began to vigorously develop the real estate economy two decades ago, and all real estate developers take economic interests as their first consideration, resulting in the lack of reasonable design and use of recreational and sports venues for the elderly in various residential areas.</p>
	<p>T(3):</p> <p>(3) With the impact of the new coronavirus infection epidemic (Corona Virus Disease 2019, COVID-19) in recent years, problems such as insufficient government attention to the need for recreational and sports spaces for the</p>

W	T
	elderly in urban development planning have also emerged.

WT: $W1T1 = W1(\text{Different nature of the property}) + T1(\text{Serious urban-rural difference})$

$W1T2 = W1(\text{Different nature of the property}) + T2(\text{lack of reasonable design})$

$W1T3 = W1(\text{Different nature of the property}) + T3(\text{Insufficient government attention})$

$W2T1 = W2(\text{Difficult to meet the needs in urban areas}) + T1(\text{Serious urban-rural difference})$

$W2T2 = W2(\text{Difficult to meet the needs in urban areas}) + T2(\text{lack of reasonable design})$

$W2T3 = W2(\text{Difficult to meet the needs in urban areas}) + T3(\text{Insufficient government attention})$

$W3T1 = W3(\text{Losing the social function of sport venues}) + T1(\text{Serious urban-rural difference})$

$W3T2 = W3(\text{Losing the social function of sport venues}) + T2(\text{lack of reasonable design})$

$W3T3 = W3(\text{Losing the social function of sport venues}) + T3(\text{Insufficient government attention})$

3. Recreational Sports

Instructors :

S: S1(Instructors able to provide proper guidance), S2 (Instructors can organize recreation sports)

W: W1(Shortage of specialist instructors), W2 (Lack of expertise specialist instructors)

O: O1(Train instructors specializing in exercise therapy), O2 (Educated knowledge of sports instruction)

T: T1(Insufficient Specialist instructors), T2(Insufficient specialist mentors), T3 (Uneven specialist instructors between urban and rural areas)

SO:

S	O
S(1): (1) Recreational sports instructors are able to provide proper guidance to the elderly on relevant physical fitness and movement standards to prevent sports	O(1): (1) There are already university physical education faculties that train instructors specializing in exercise therapy.
	O(2):

S	O
accidents.	(2) The medical schools of some universities have added a course on the treatment of mental illnesses through recreational sports in their medical rehabilitation programs, so that these educated health care workers can take up the role of instructors when they have the relevant knowledge of sports instruction.
S(2): (2) Instructors can play the role of an organizer in conducting recreational sports for the elderly.	O(1): (1) There are already university physical education faculties that train instructors specializing in exercise therapy.
	O(2): (2) The medical schools of some universities have added a course on the treatment of mental illnesses through recreational sports in their medical rehabilitation programs, so that these educated health care workers can take up the role of instructors when they have the relevant knowledge of sports instruction.

SO: S1O1= S1(Instructors able to provide proper guidance)+

O1(Train instructors specializing in exercise therapy)

S1O2=S1(Instructors able to provide proper guidance)+ O2

(Educated knowledge of sports instruction)

S2O1= S2 (Instructors can organize recreation sports)+ O1(Train instructors specializing in exercise therapy)

S2O2= S2 (Instructors can organize recreation sports)+ O2 (Educated knowledge of sports instruction)

ST:

S	T
<p>S(1):</p> <p>(1) Recreational sports instructors are able to provide proper guidance to the elderly on relevant physical fitness and movement standards to prevent sports accidents.</p>	<p>T(1):</p> <p>(1) At present, the number of Specialist instructors trained in our country is insufficient to match the needs of the growing number of elderly patients with depression.</p>
<p>S(2):</p> <p>(2) Instructors can play the role of an organizer in conducting recreational sports for the elderly.</p>	<p>T(2):</p> <p>(2) The salary for hiring Specialist mentors is not sufficient to attract enough mentors.</p>
	<p>T(3):</p> <p>(3) The distribution of Specialist instructors is uneven between urban and rural areas and communities.</p>
	<p>T(1):</p> <p>(1) At present, the number of Specialist instructors trained in our country is insufficient to match the needs of the</p>

S	T
	growing number of elderly patients with depression.
	T(2): (2) The salary for hiring Specialist mentors is not sufficient to attract enough mentors.
	T(3): (3) The distribution of Specialist instructors is uneven between urban and rural areas and communities.

ST: S1T1= S1(Instructors able to provide proper guidance)+
T1(Insufficient Specialist instructors)

S1T2= S1(Instructors able to provide proper guidance)+
T2(Insufficient specialist mentors)

S1T3= S1(Instructors able to provide proper guidance)+ T3 (Uneven specialist
instructors between urban and rural areas)

S2T1= S2 (Instructors can organize recreation sports)+ T1(Insufficient Specialist
instructors)

S2T2= S2 (Instructors can organize recreation sports)+ T2(Insufficient specialist
mentors)

S2T3= S2 (Instructors can organize recreation sports)+ T3 (U neven specialist
instructors between urban and rural areas)

WO:

W	O
<p>W(1):</p> <p>(1) There is a serious shortage in the number of Specialist instructors suitable to act as recreational sports for depressed older adults.</p>	<p>O(1):</p> <p>(1) There are already university physical education faculties that train instructors specializing in exercise therapy.</p> <p>O(2):</p> <p>(2) The medical schools of some universities have added a course on the treatment of mental illnesses through recreational sports in their medical rehabilitation programs, so that these educated health care workers can take up the role of instructors when they have the relevant knowledge of sports instruction.</p>
<p>W(2):</p> <p>(2) There is a lack of expertise among current Specialist instructors in targeting the alleviation of Elderly depression symptoms.</p>	<p>O(1):</p> <p>(1) There are already university physical education faculties that train instructors specializing in exercise therapy.</p> <p>O(2):</p> <p>(2) The medical schools of some universities have added a course on the treatment of mental illnesses through recreational sports in their medical rehabilitation programs, so that these educated health care workers can take up the role of instructors when they have the</p>

W	O
	relevant knowledge of sports instruction.

WO: W1O1=W1(Shortage of specialist instructors)+ O1(Train instructors specializing in exercise therapy)

W1O2= W1(Shortage of specialist instructors)+ O2 (Educated knowledge of sports instruction)

W2O1= W2 (Lack of expertise specialist instructors)+ O1(Train instructors specializing in exercise therapy)

W2O2= W2 (Lack of expertise specialist instructors)+ O2 (Educated knowledge of sports instruction)



WT:

W	T
<p>W(1):</p> <p>(1) There is a serious shortage in the number of Specialist instructors suitable to act as recreational sports for depressed older adults.</p>	<p>T(1):</p> <p>(1) At present, the number of Specialist instructors trained in our country is insufficient to match the needs of the growing number of elderly patients with depression.</p> <p>T(2):</p> <p>(2) The salary for hiring Specialist mentors is not sufficient to attract enough mentors.</p> <p>T(3):</p> <p>(3) The distribution of Specialist instructors is uneven between urban and rural areas and communities.</p>
<p>W(2):</p> <p>(2) There is a lack of expertise among current Specialist instructors in targeting the alleviation of Elderly depression symptoms.</p>	<p>T(1):</p> <p>(1) At present, the number of Specialist instructors trained in our country is insufficient to match the needs of the growing number of elderly patients with depression.</p> <p>T(2):</p> <p>(2) The salary for hiring Specialist mentors is not sufficient to attract enough mentors.</p> <p>T(3):</p> <p>(3) The distribution of Specialist instructors is uneven between urban and rural areas and communities.</p>

WT: W1T1=W1(Shortage of specialist instructors)+ T1(Insufficient Specialist instructors)

W1T2= W1(Shortage of specialist instructors)+ T2(Insufficient specialist mentors)

W1T3= W1(Shortage of specialist instructors)+ T3 (Uneven specialist instructors between urban and rural areas)

W2T1= W2 (Lack of expertise specialist instructors)+ T1(Insufficient Specialist instructors)

W2T2= W2 (Lack of expertise specialist instructors)+ T2(Insufficient specialist mentors)

W2T3= W2 (Lack of expertise specialist instructors)+ T3 (U n e v e n specialist instructors between urban and rural areas)

4. Recreational Sports Programs :

S: S1(Many ethnic traditional sports programs improve symptoms with depression), S2(Sport programs are constantly enriched)

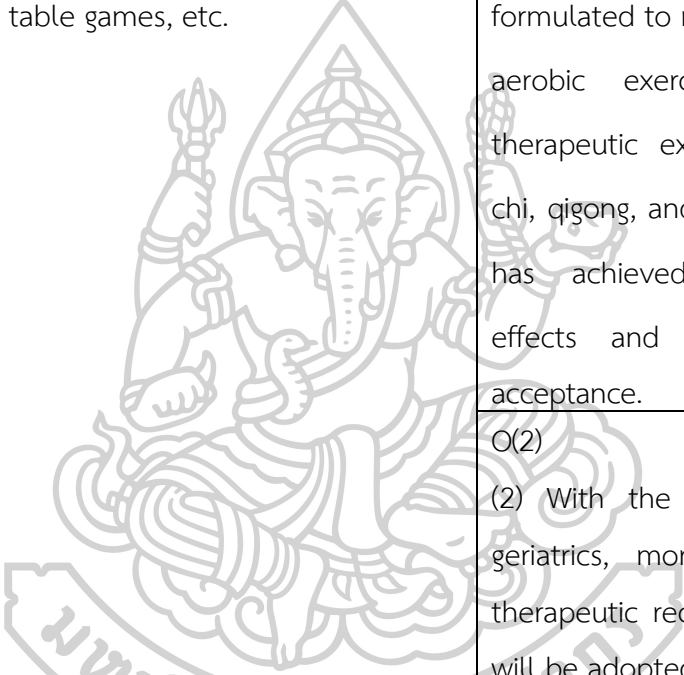
W: W1(The requirement of sport programs), W2(Backward in terms of innovation and use)

O: O1(The preferred therapeutic excise modality), O2(New therapeutic recreational sports programs)

T:T1(Conflict between the ardent needs and current economic), T2(Not meet the physical and mental characteristics)

SO:

S	O
<p>S(1):</p> <p>(1) There are many ethnic traditional sports programs that are suitable for the treatment of elderly patients with depression. For example, Tai Chi and Qigong are considered to be the most effective in helping to improve cognitive abilities in older adults because they are among the exercises that combine meditation, breathing, and relaxation techniques through soothing and controlling emotions, emphasizing the integration of the body and the mind, which are common to the therapeutic principles of reducing symptoms in elderly patients with depression.</p>	<p>O(1)</p> <p>(1) In order to achieve a more effective way to reduce the symptoms of Elderly depression with recreational sports, at present, in China, in the exercise therapy, relevant guidelines have been formulated to recommend the traditional aerobic exercise as the preferred therapeutic exercise modality (e.g., tai chi, qigong, and eight-duan brocade), and has achieved good therapeutic effects and social acceptance.</p> <p>O(2)</p> <p>(2) With the further development of geriatrics, more and more new and therapeutic recreational sports programs will be adopted and practiced.</p>

S	O
<p>S(2):</p> <p>(2) As the age and experience of elderly depressed patients change, some new recreational sports programs are slowly introduced and the sports programs are constantly enriched. For example, gate ball, table games, etc.</p>	<p>O(1)</p> <p>(1) In order to achieve a more effective way to reduce the symptoms of Elderly depression with recreational sports, at present, in China, in the exercise therapy, relevant guidelines have been formulated to recommend the traditional aerobic exercise as the preferred therapeutic exercise modality (e.g., tai chi, qigong, and eight-duan brocade), and has achieved good therapeutic effects and social acceptance.</p>
	<p>O(2)</p> <p>(2) With the further development of geriatrics, more and more new and therapeutic recreational sports programs will be adopted and practiced.</p>

SO: S1O1=S1(Many ethnic traditional sports programs improve symptoms with depression)+ O1(The preferred therapeutic excise modality)

S1O2 = S1 (Many ethnic traditional sports programs improve symptoms with depression) + O2 (New therapeutic recreational sports programs)

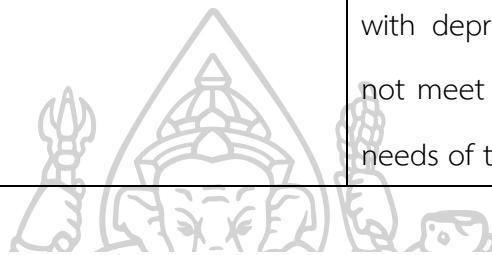
S2O1= S2 (Sport programs are constantly enriched) + O1 (The preferred therapeutic excise modality)

S2O2 = S2 (Sport programs are constantly enriched) + O2 (New therapeutic recreational sports programs)

ST:

S	T
<p>S(1):</p> <p>(1) There are many ethnic traditional sports programs that are suitable for the treatment of elderly patients with depression. For example, Tai Chi and Qigong are considered to be the most effective in helping to improve cognitive abilities in older adults because they are among the exercises that combine meditation, breathing, and relaxation techniques through soothing and controlling emotions, emphasizing the integration of the body and the mind, which are common to the therapeutic principles of reducing symptoms in elderly patients with depression.</p>	<p>T(1):</p> <p>(1) A part of the conflict between the ardent needs of elderly depressed people and the current economic or social conditions that cannot be provided for the realization of sports programs that must be accompanied by the need for excessive external environmental conditions to be met.</p> <p>T(2):</p> <p>(2) Some of the recreational sports programs have not been modified to meet the physical and mental characteristics of the elderly, and they do not provide treatment for the elderly with depression, and they certainly do not meet the social needs of the elderly</p>
<p>S(2):</p> <p>(2) As the age and experience of elderly depressed patients change, some new recreational sports programs are slowly introduced and the sports programs are constantly enriched. For example, gate ball, table games, etc.</p>	<p>T(1):</p> <p>(1) A part of the conflict between the ardent needs of elderly depressed people and the current economic or social conditions that cannot be provided for the realization of sports programs that must be accompanied by the need for excessive external environmental conditions to be met.</p>

S	T
	T(2): (2) Some of the recreational sports programs have not been modified to meet the physical and mental characteristics of the elderly, and they do not provide treatment for the elderly with depression, and they certainly do not meet the social needs of the elderly



ST: S1T1=S1(Many ethnic traditional sports programs improve symptoms with depression)+ T1(Conflict between the ardent needs and current economic)

S1T2=S1(Many ethnic traditional sports programs improve symptoms with depression)+ T2(Not meet the physical and mental characteristics)

S2T1= S2(Sport programs are constantly enriched)+ T1(Conflict between the needs and current economic)

S2T2= S2(Sport programs are constantly enriched)+ T2(Not meet the physical and characteristics)

WO:

W	O
<p>W(1):</p> <p>(1) Some recreational sports programs suitable for elderly depressed patients need to have the requirements of being outdoors, larger area, sufficient light, good ventilation, and convenient transportation, and these programs will be difficult to be selected because they are more difficult to meet.</p>	<p>O(1)</p> <p>(1) In order to achieve a more effective way to reduce the symptoms of Elderly depression with recreational sports, at present, in China, in the exercise therapy, relevant guidelines have been formulated to recommend the traditional aerobic exercise as the preferred therapeutic exercise modality (e.g., tai chi, qigong, and eight-duan brocade), and has achieved good therapeutic effects and social acceptance.</p>
	<p>O(2)</p> <p>(2) With the further development of geriatrics, more and more new and therapeutic recreational sports programs will be adopted and practiced.</p>

W	O
<p>W(2):</p> <p>(2) Sports programs have not kept up with the development of society and are more backward in terms of innovation and use.</p>	<p>O(1)</p> <p>(1) In order to achieve a more effective way to reduce the symptoms of Elderly depression with recreational sports, at present, in China, in the exercise therapy, relevant guidelines have been formulated to recommend the traditional aerobic exercise as the preferred therapeutic exercise modality (e.g., tai chi, qigong, and eight-duan brocade), and has achieved good therapeutic effects and social acceptance.</p>
	<p>O(2)</p> <p>(2) With the further development of geriatrics, more and more new and therapeutic recreational sports programs will be adopted and practiced.</p>

WO: W1O1= W1(The requirement of sport programs)+ O1(The preferred therapeutic excise modality)

W1O2= W1(The requirement of sport programs)+ O2(New therapeutic recreational sports programs)

W2O1= W2(Backward in terms of innovation and use)+ O 1 (T h e preferred therapeutic excise modality)

W2O2= W2(Backward in terms of innovation and use)+ O2(New therapeutic recreational sports programs)

WT:

W	T
<p>W(1):</p> <p>(1) Some recreational sports programs suitable for elderly depressed patients need to have the requirements of being outdoors, larger area, sufficient light, good ventilation, and convenient transportation, and these programs will be difficult to be selected because they are more difficult to meet.</p>	<p>T(1):</p> <p>(1) A part of the conflict between the ardent needs of elderly depressed people and the current economic or social conditions that cannot be provided for the realization of sports programs that must be accompanied by the need for excessive external environmental conditions to be met.</p> <p>T(2):</p> <p>(2) Some of the recreational sports programs have not been modified to meet the physical and mental characteristics of the elderly, and they do not provide treatment for the elderly with depression, and they certainly do not meet the social needs of the elderly.</p>
<p>W(2):</p>	<p>T(1):</p>

W	T
(2) Sports programs have not kept up with the development of society and are more backward in terms of innovation and use.	(1) A part of the conflict between the ardent needs of elderly depressed people and the current economic or social conditions that cannot be provided for the realization of sports programs that must be accompanied by the need for excessive external environmental conditions to be met.
	T(2): (2) Some of the recreational sports programs have not been modified to meet the physical and mental characteristics of the elderly, and they do not provide treatment for the elderly with depression, and they certainly do not meet the social needs of the elderly.

W T: W1T1= W1(The requirement of sport programs)+ T1(Conflict between the ardent needs and current economic)

W1T2= W1(The requirement of sport programs)+ T2(Not meet the physical and mental characteristics)

W2T1= W2(Backward in terms of innovation and use)+ T1(Conflict between the ardent needs and current economic)

W2T2= W2(Backward in terms of innovation and use)+ T2(Not meet the physical and mental characteristics)

5. Strategy 5: Recreational Sport Time :

S: S1(Regardless of the length of time), S2(Elderly spend in recreational sport time)

W: W1(Effect of time varies with individual), W2(Appropriate amount needs to be observed)

O: O1(The general administration of sport of China has formulated a time guideline), O2 (Elderly attach great importance of exercise)

T:T1(No guideline on the duration of exercise for elderly with depression), T2 (No combines the three elements of program)

SO:

S	O
<p>S(1): (1) Regardless of the length of time, recreational sports are pleasurable and reduce depressive symptoms in older depressed individuals.</p>	<p>O(1): (1) The General Administration of Sport of China has formulated a time guideline for Recreational sports specifically for the elderly, which clearly indicates the suitable time schedule for Recreational sports for the elderly. (2) Elderly people in Guangdong Province attach great importance to the meaning of exercise as a means of health maintenance, and follow the theory that exercise should be appropriate and should not be overdone, as this will harm the “vital energy” of the body.</p>
<p>S(2): (2) The amount of time that depressed</p>	<p>O(1): (1) The General Administration of Sport</p>

S	O
<p>older adults spend in Recreational sports can be compared to the amount of time that older adults spend exercising.</p>	<p>of China has formulated a time guideline for Recreational sports specifically for the elderly, which clearly indicates the suitable time schedule for Recreational sports for the elderly.</p>
	<p>(2) Elderly people in Guangdong Province attach great importance to the meaning of exercise as a means of health maintenance, and follow the theory that exercise should be appropriate and should not be overdone, as this will harm the “vital energy” of the body.</p>

SO: S1O1= S1(Regardless of the length of time)+ O1(The general administration of sport of China has formulated a time guideline)

S1O2= S1(Regardless of the length of time)+ O2 (Elderly attach great importance of exercise)

S2O1= S2(Elderly spend in recreational sport time)+ O1(The general administration of sport of China has formulated a time guideline)

S2O2= S2(Elderly spend in recreational sport time)+ O2 (Elderly attach great importance of exercise)

ST:

S	T
<p>S(1):</p> <p>(1) Regardless of the length of time, recreational sports are pleasurable and reduce depressive symptoms in older depressed individuals.</p>	<p>T(1):</p> <p>(1) At present, there is only a standardized guideline on the duration of recreational exercise for elderly people in general, but there is no guideline on the duration of exercise for elderly people with depression to reduce their depressive symptoms.</p>
<p>S(2):</p> <p>(2) The amount of time that depressed older adults spend in Recreational sports can be compared to the amount of time that older adults spend exercising.</p>	<p>T(2):</p> <p>(2) Nor is there a scientific medical finding that combines the three elements of depression level, exercise program chosen, and time required.</p> <p>T(1):</p> <p>(1) At present, there is only a standardized guideline on the duration of recreational exercise for elderly people in general, but there is no guideline on the duration of exercise for elderly people with depression to reduce their depressive symptoms.</p> <p>T(2):</p> <p>(2) Nor is there a scientific medical finding that combines the three elements of depression level, exercise</p>

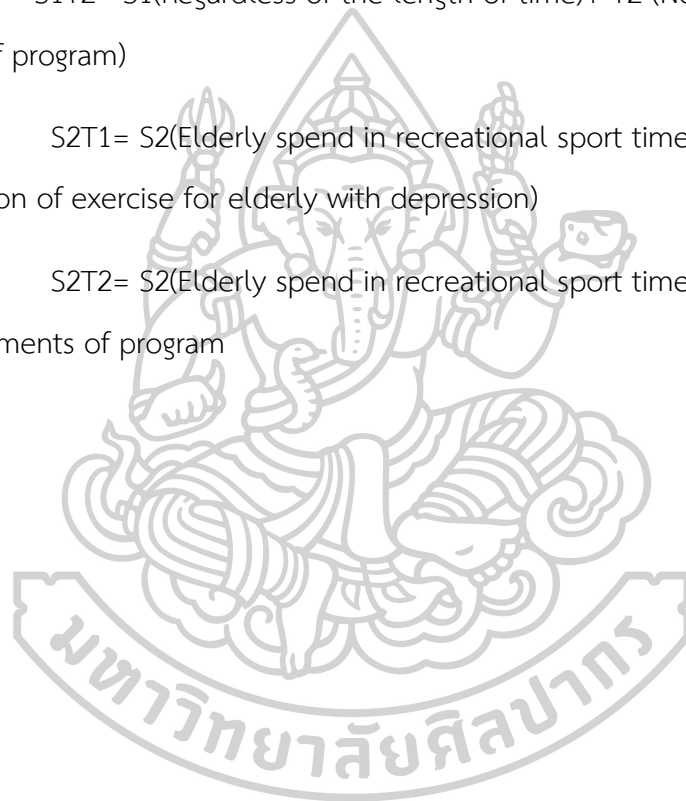
S	T
	program chosen, and time required.

ST: S1T1= S1(Regardless of the length of time)+ T1(No guideline on the duration of exercise for elderly with depression)

S1T2= S1(Regardless of the length of time)+ T2 (No combines the three elements of program)

S2T1= S2(Elderly spend in recreational sport time)+ T1(No guideline on the duration of exercise for elderly with depression)

S2T2= S2(Elderly spend in recreational sport time)+ T2 (No combines the three elements of program)



WO:

W	O
<p>W(1):</p> <p>(1) The effect of Recreational time on reducing depressive symptoms in older adults with depression varies with individual preferences and can be difficult to determine by oneself.</p>	<p>O(1):</p> <p>(1) The General Administration of Sport of China has formulated a time guideline for Recreational sports specifically for the elderly, which clearly indicates the suitable time schedule for Recreational sports for the elderly.</p> <p>(2) Elderly people in Guangdong Province attach great importance to the meaning of exercise as a means of health maintenance, and follow the theory that exercise should be appropriate and should not be overdone, as this will harm the “vital energy” of the body.</p>
<p>W(2):</p> <p>(2) The appropriate amount of recreational sports time for each geriatric patient with depression needs to be observed, counted, and guided by a sports rehabilitation physician.</p>	<p>O(1):</p> <p>(1) The General Administration of Sport of China has formulated a time guideline for Recreational sports specifically for the elderly, which clearly indicates the suitable time schedule for Recreational sports for the elderly.</p> <p>(2) Elderly people in Guangdong Province attach great importance to the meaning of exercise as a means of health maintenance, and follow the theory that exercise should be appropriate and</p>

W	O
	should not be overdone, as this will harm the “vital energy” of the body.

WO: W1O1= W1(Effect of time varies with individual)+ O1(The general administration of sport of China has formulated a time guideline)

W1O2=W1(Effect of time varies with individual)+ O2 (Elderly attach great importance of exercise)

W2O1= W2(Appropriate amount needs to be observed)+ O1(The general administration of sport of China has formulated a time guideline)

W2O2= W2(Appropriate amount needs to be observed)+ O2 (Elderly attach great importance of exercise)

WT:

W	T
<p>W(1): (1) The effect of Recreational time on reducing depressive symptoms in older adults with depression varies with individual preferences and can be difficult to determine by oneself.</p>	<p>T(1): (1) At present, there is only a standardized guideline on the duration of recreational exercise for elderly people in general, but there is no guideline on the duration of exercise for elderly people with depression to reduce their depressive symptoms.</p>
	<p>T(2): (2) Nor is there a scientific medical</p>

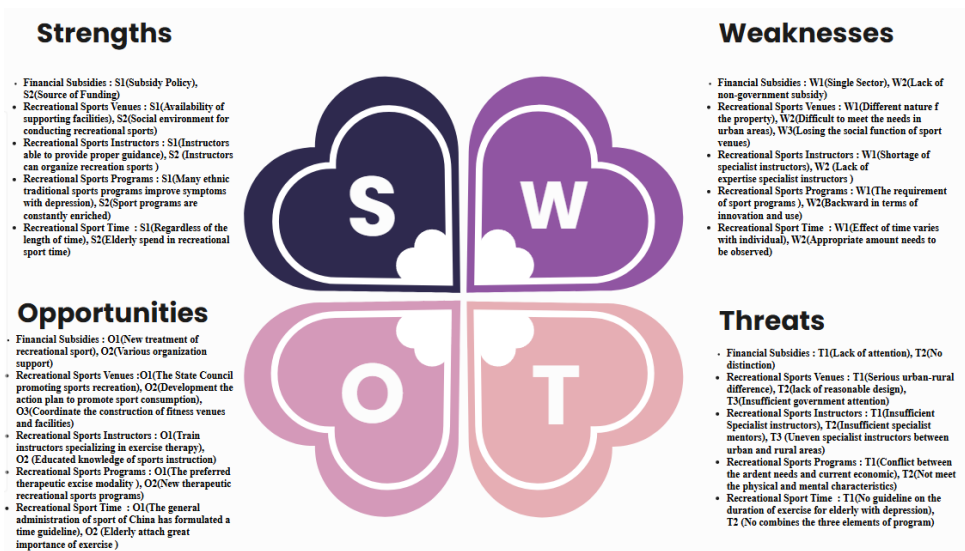
W	T
	finding that combines the three elements of depression level, exercise program chosen, and time required.
<p>W(2):</p> <p>(2) The appropriate amount of recreational sports time for each geriatric patient with depression needs to be observed, counted, and guided by a sports rehabilitation physician.</p>	<p>T(1):</p> <p>(1) At present, there is only a standardized guideline on the duration of recreational exercise for elderly people in general, but there is no guideline on the duration of exercise for elderly people with depression to reduce their depressive symptoms.</p>
	<p>T(2):</p> <p>(2) Nor is there a scientific medical finding that combines the three elements of depression level, exercise program chosen, and time required.</p>

WT: W1T1= W1(Effect of time varies with individual)+ T1(No guideline on the duration of exercise for elderly with depression)

W1T2=W1(Effect of time varies with individual)+ T2 (No combines the three elements of program)

W2T1= W2(Appropriate amount needs to be observed)+ T1(No guideline on the duration of exercise for elderly with depression)

W2T2= W2(Appropriate amount needs to be observed)+ T2 (No combines the three elements of program)



Picture-2: SWOT Diagram

TOWS analysis of the results:

1. Financial Subsidies

SO1.1= S(1) The central government, administrative units at all levels, and various departments of gerontological affairs cooperate fully to formulate and implement subsidy policies in a more timely and adequate manner. +

O(1) The state is gradually recognizing that the economic effects that follow prevention and treatment of recreational sports can directly reduce health care expenditures for elderly depression

= Sub-strategy (SO1.1) 1.1 Establish a funding subsidy system that consists of multiple government departments working together.

WO1.1= W(2) There is a lack of non-government financial sources for subsidies.
+ O(2) The State has begun to increase its efforts to guide and support the income of

various organizations and enterprises in society through the participation in the elderly care business or the sponsorship of Recreational sports competitions for the elderly and other related financial subsidies.

=Sub-strategy (WO1.1) 1.2 Fund-raising approach by various social organizations to assist in raising funds for Recreational and sports activities for the elderly with depression.

WT1=W(2) There is a lack of non-government financial sources for subsidies. + T(1) The state and the government do not pay enough attention to Recreational sports for the elderly, the government's financial investment is too small, and there is a lack of funds for the development of sports for the elderly, which is even more insufficient when it comes to the treatment of elderly patients with depression. + T(2) The management of subsidies by government departments is not scientific, and there is no distinction between urban and rural areas in the distribution of subsidies.

= Sub-strategy (WT1.1) 1.3 Charge an activity fee for each elderly patient who engages in recreational sports.

Strategy 1=SO1.1+WO1.1+WT1.1

=Strategy 1 Establish a subsidy method that combines multiple sources of funding by multiple payers.

Sub-strategy (SO1.1) 1.1 Establish a funding subsidy system that consists of multiple government departments working together.

Sub-strategy (WO1.1) 1.2 Fund-raising approach by various social organizations to assist in raising funds for Recreational and sports activities for the elderly with depression.

Sub-strategy (WT1.1) 1.3 Charge an activity fee for each elderly patient who engages in recreational sports.

2. Recreational Sports Venues:

SO2.1= S(1) The standard of the sports ground provided to elderly depressed patients for Recreational sports is based on the main requirements of personal safety assurance and availability of supporting facilities, and not on the primary requirement of vast area, so a small conference room of a social rehabilitation center can meet the Recreational sports needs of the elderly. Such as chorus, handmade, indoor senior yoga and so on. +

O(1) As early as 2014, Several Opinions of the State Council on Accelerating the

Development of the Sports Industry and Promoting Sports Consumption (Guo Fa [2014] No. 46) put forward: the target of 2 square meters of sports ground per capita by 2025.

=Sub-strategy (SO2.1) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.

SO2.2= S(1) The standard of the sports ground provided to elderly depressed patients for Recreational sports is based on the main requirements of personal safety assurance and availability of supporting facilities, and not on the primary requirement of vast area, so a small conference room of a social rehabilitation center can meet the Recreational sports needs of the elderly. Such as chorus, handmade, indoor senior yoga and so on. +

O(3) On this basis, the General Office of the State Council, in the Outline for the Construction of a Strong Sporting Nation issued in September 2019, has seriously proposed to coordinate the construction of fitness venues and facilities for the whole nation, strengthen the construction of venues and facilities such as urban greenways, fitness running tracks, bicycle paths, fitness centers for the whole nation, sports and

fitness parks, and community cultural and sports plazas, and to combine them with the comprehensive development and renovation of construction projects for residential, commercial, cultural and recreational areas. , rational use of vacant urban sites, underground space, parks and green spaces, and other measures to continuously work for Recreational and sports venues for the elderly. +

= Sub-strategy (SO2.2) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

ST2.1= S(2) China has always had a traditional social environment of national fitness, so every community, every large residential area, every village and town have set up a certain number of venues for conducting recreational sports, and these venues also try to meet the needs of venues for the elderly with depression. +

T(1) Although the above policy is geared towards the whole country, there are serious urban-rural differences. In Maoming City, Guangdong Province, for example, the realization rate of planning for recreational and sports venues for the elderly in townships is significantly higher than that in urban areas, because large cities have to face the problems of scarcity of land and crowded space resulting in insufficient supply of sports venues, leading to the frequent occurrence of elderly depressives jumping up and down in square dances next to the main road.

= Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

WO2.1= W(1) Although every community, every large residential area, every village and town has a certain number of venues for recreational sports, due to the different nature of the property rights belonging to them, the economic influence of the main unit, and the economic downturn in recent years, the various sports venues are in a dilapidated or dilapidated condition, and even have hidden safety hazards. +

O(1) As early as 2014, Several Opinions of the State Council on Accelerating the Development of the Sports Industry and Promoting Sports Consumption (Guo Fa [2014] No. 46) put forward: the target of 2 square meters of sports ground per capita by 2025.

=Sub-Strategy (WO1.1) 2.1 Appropriate renovation of existing parks and civic activity squares.

WO2.1= W(2) Some of the recreational sports to alleviate the symptoms of Elderly depression require open-air, large-scale and nearby sports venues, which are indeed difficult to meet the needs in urban areas where land resources are extremely valuable. For example, tai chi, qigong, jogging, and so on. +

O(2) In order to address the lack of space for sports activities, the State General Administration of Sport and the Development and Reform Commission jointly issued the Action Plan to Further Promote Sports Consumption (2019-2020) in January 2019. The plan states that parks, green spaces, vacant urban sites, building rooftops, basements, and other areas should be fully and reasonably utilized to build recreational and sports facilities for the elderly, and to continually meet the need for sports venues for the elderly.

=Sub-Strategy (WO2.1) 2.1 Appropriate renovation of existing parks and civic activity squares.

WT2.1= W(3) Due to the reason of economic growth, it has become common for families in China to own family cars, and the difficulty of parking has become a social disturbing factor. A large number of recreational and sports venues have been destroyed or converted into parking lots without authorization, thus losing the social function of sports venues. +

T(2) With the development of the economy, China began to vigorously develop the real estate economy two decades ago, and all real estate developers take economic interests as their first consideration, resulting in the lack of reasonable design and use of recreational and sports venues for the elderly in various residential areas.

=Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.

Strategy 2=SO2.1+SO2.2+ST2.1+WO2.1+WT2.1

= Strategy 2: Do a good job of maintaining, renovating, upgrading, and constructing Recreational and sports venues.

Sub-Strategy (WO2.1) 2.1 Appropriate renovation of existing parks and civic activity squares.

Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.

Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.

3. Recreational Sports Instructors :

SO3.1= S(1) Recreational sports instructors are able to provide proper guidance to the elderly on relevant physical fitness and movement standards to prevent sports accidents. +

O(1) There are already university physical education faculties that train instructors specializing in exercise therapy. +

O(2) The medical schools of some universities have added a course on the treatment of mental illnesses through recreational sports in their medical rehabilitation programs, so that these educated health care workers can take up the role of instructors when they have the relevant knowledge of sports instruction.

= Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression

WO3.1=W(1) There is a serious shortage in the number of Specialist instructors suitable to act as recreational sports for depressed older adults. +

O(1) There are already university physical education faculties that train instructors specializing in exercise therapy. +

O(2) The medical schools of some universities have added a course on the treatment of mental illnesses through recreational sports in their medical rehabilitation programs, so that these educated health care workers can take up the role of instructors when they have the relevant knowledge of sports instruction.

= Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors specializing in recreational sports for elderly depressed patients.

WT3.1= W(1) There is a serious shortage in the number of Specialist instructors suitable to act as recreational sports for depressed older adults. +

T(1) At present, the number of Specialist instructors trained in our country is insufficient to match the needs of the growing number of elderly patients with depression.

= Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to instruct elderly depressed patients in Recreational sports.

Strategy 3=SO3.1+WO3.1+WT3.1

=Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression

Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression

Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to instruct elderly depressed patients in Recreational sports.

Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors specializing in recreational sports for elderly depressed patients.

4. Recreational Sports Programs :

ST4.1=S(2) As the age and experience of elderly depressed patients change, some new recreational sports programs are slowly introduced and the sports programs are constantly enriched. For example, gate ball, table games, etc. +

T(1) A part of the conflict between the ardent needs of elderly depressed people and the current economic or social conditions that cannot be provided for the realization of sports programs that must be accompanied by the need for excessive external environmental conditions to be met.

= Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depression patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

ST4.2= S(2) As the age and experience of elderly depressed patients change, some new recreational sports programs are slowly introduced and the sports programs are constantly enriched. For example, gate ball, table games, etc. +

T(2) Some of the recreational sports programs have not been modified to meet the physical and mental characteristics of the elderly, and they do not provide treatment for the elderly with depression, and they certainly do not meet the social needs of the elderly.

= Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs with age group as the differentiating factor in order to alleviate the symptoms of Elderly depression.

WO4.1= W(2) Sports programs have not kept up with the development of society and are more backward in terms of innovation and use. +

O(2) With the further development of geriatrics, more and more new and therapeutic recreational sports programs will be adopted and practiced.) +

= Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted and with national characteristics.

Strategy 4= ST4.1+ ST4.2+ WO4.1

= Strategy 4: Promote the heritage and innovation of recreational sports programs.

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted and with national characteristics.

Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depression patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs with age group as the differentiating factor in order to alleviate the symptoms of Elderly depression.

5. Strategy 5: Recreational Sport Time :

ST5.1= S(1) Regardless of the length of time, recreational sports are pleasurable and reduce depressive symptoms in older depressed individuals. +

T(1) At present, there is only a standardized guideline on the duration of recreational exercise for elderly people in general, but there is no guideline on the duration of exercise for elderly people with depression to reduce their depressive symptoms.

= Sub-strategy (ST5.1) 5.1 Instruct older patients with depression on the number of times they should engage in recreational sports during each week.

ST5.2= S(1) Regardless of the length of time, recreational sports are pleasurable and reduce depressive symptoms in older depressed individuals. +

T(2) Nor is there a scientific medical finding that combines the three elements of depression level, exercise program chosen, and time required.

=Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

ST5.3= S(2) The amount of time that depressed older adults spend in Recreational sports can be compared to the amount of time that older adults spend exercising. +

T(1) At present, there is only a standardized guideline on the duration of recreational

exercise for elderly people in general, but there is no guideline on the duration of exercise for elderly people with depression to reduce their depressive symptoms.

= Sub-strategy (ST5.3) 5.3 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

Strategy 5=ST5.1+ST5.2+ST5.3

= Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression

Sub-strategy (ST5.1) 5.1 Instruct older patients with depression on the number of times they should engage in recreational sports during each week.

Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

Sub-strategy (ST5.3) 5.3 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

4.6 To develop a draft Strategies

To develop a draft Strategies of Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong.

By analyzing the strengths (S), weaknesses (W), opportunities (O) and Threats (T) of the 5 elements in the environment of the study of “Recreational and Sports Strategies for the Depression Problems of the Elderly in Guangdong”, and by combining the assessment and suggestions of the relevant experts, the draft of the “Recreational and Sports Strategies for the Depression Problems of the Elderly in Guangdong ” has been drawn up. The draft of “Recreational Sports Strategy for Elderly People with Depression in Guangdong Province” was drafted.

Draft Strategy Vision:

To improve the symptoms of depression in the elderly with scientific strategies of Recreational and sports, which improves the physical and mental health, quality of life and other aspects of the elderly, as well as their sense of well-being in life.

Mission:

1. To establish a financial subsidy system based on multi-sectoral cooperation by the government, and to raise funds from various social organizations as a supplementary way of financial security.
2. To do a good job of maintaining, renovating, upgrading and building Recreational and sports venues, so as to make a good foundation for venues to reduce the symptoms of elderly depression patients.
3. To cultivate, allocate and appoint sports instructors who specialize in Recreational sports for elderly patients with depression in a long-term and targeted manner, so as to achieve

the purpose of improving the symptoms of depression in elderly patients with depression in a more scientific and targeted manner.

4. Do a good job in the inheritance and innovation of Recreational sports programs, both in line with the needs of the elderly patients with depression in their own physical conditions, but also to make them physically and mentally pleasurable sports activity programs.

5. Scientifically and reasonably arrange the Recreational sports time of elderly patients with depression to achieve the purpose of improving symptoms.

Strategies: “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”

Components of the strategy:

Strategy 1: Financial Subsidies Strategy 2: Recreational Sports Venues

Strategy 3: Recreational Sports Instructors Strategy 4: Recreational Sports

Programs Strategy 5: Recreational Sport Time

Specifics of the strategy:

Strategic: “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”

Strategy 1: Establish a subsidy method that combines multiple sources of funding by multiple payers.

Sub-strategy (SO1.1) 1.1 Establish a funding subsidy system that consists of multiple government departments working together.

Content:

1. the people's government should set out from the annual financial budget from the funding for the aging program to expend the funding for elderly depressed people to engage in Recreational and sports activities.

2. The government's civil affairs department shall set out from the budget for geriatric disease treatment the funds for spending on recreational sports for elderly depressed patients. Indicators:

1. The proportion of the budget is drawn in accordance with the Regulations on the Protection of the Rights and Interests of the Elderly in Guangdong Province.

2. The relevant expenditure budget of the civil affairs department is approved on the basis of each administrative unit application. For example, each community is the unit of application. Sub-strategy (WO1.1) 1.2 Fund-raising approach by various social organizations to assist in raising funds for Recreational and sports activities for the elderly with depression.

Content:

1. Fund-raising activities to be organized by local hometown associations so that local residents and villagers who work outside their home districts can provide financial support to elderly persons with depression when they engage in recreational sports in their districts.

2. Organize sponsorship and donation activities by local chambers of commerce, so that business operators with successful careers and rich funds who work outside the home can subsidize the activities of elderly patients.

3. To cooperate with relevant enterprises to conduct title or purely subsidized Recreational sports for the elderly.

Indicators:

1. Setting up an audit system for the fund-raising funds of the hometown associations to ensure the source and utilization of the funds.

2. Involve the accounting department of the Chamber in the distribution of sponsorship funds.

3. set up a schedule of funds used for each event and publicize it to the public.

Sub-strategy (WT1.1) 1.3 Charge an activity fee for each elderly patient who engages in recreational sports.

Content:

Activity fees for elderly patients can be appropriately charged for each recreational sport. Indicators:

Try to expand the upper limit of the number of people in the organization of the number of people can be equalized to share the cost, thus reducing the expenditure of elderly patients.

Strategy 2: Do a good job of maintaining, renovating, upgrading, and constructing Recreational and sports venues.

Sub-Strategy (WO2.1) 2.1 Appropriate renovation of existing parks and civic activity squares. Content:

1. open up special areas suitable for Recreational sports for the elderly.

2. The maintenance and remodeling of the places should be improved in terms of the scope of activities, fitness facilities, lighting and illumination for the purpose of remodeling. Indicators:

1. Setting up a schedule for the renovation of parks, civic activity squares and public sports venues.

2. Setting up a consultation form for the remodeling of parks, civic activity squares, and public sports venues.

3. Publicize the progress of venue renovation on a regular basis.

Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.

Content:

1. Set up age-appropriate characteristic activity areas for the elderly. For example, the depth of swimming pools for the elderly should be no more than 1.5 meters.

2. install non-slip, anti-drop, and power-assisted flooring devices and handrails in activity venues.

Indicators:

1. whether the area of the activity space and the number of anti-slip, anti-drop and power- assisted flooring devices and handrails are reasonably configured.

2. whether the marginal benefits of public sports services are enhanced.

3. timed statistics on whether the venues renovated have effectively enhanced the coverage of the venues.

Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to

increase recreational and sports venues for the elderly. Contents:

1. The planned sites for greenways must be level and safe.
2. lighting for greenways is appropriate and bright.
3. greenway sites should be in transportation non-major roadway areas.
4. greenway sites should be adjacent to large residential neighborhoods.

Indicators:

1. the total length of the greenway and the total number of streetlights and the spacing of each streetlight.
2. data related to the siting of the greenway.
3. Whether it meets the proximity needs of elderly depressed people for morning and evening low-intensity activities.

Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

Content:

1. The site selection and design of activity venues should be based on the principle of proximity, and fitness areas should be designed in the open space next to the residences of the elderly.

2. The fitness area of the activity place should be equipped with community fitness equipment. Indicators:

1. The design of activity places should be radiated outward from the radius of the residence of the elderly.

2. The fitness equipment equipped in the district should comply with national safety standards.

3. The selection criteria for fitness equipment equipped in the district are easy to dismantle, easy to repair and easy to use.

4. Whether the fitness needs of the elderly in the community and village committees are met. Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.

Content:

1. design Recreational and sports venues for the elderly depressed people within nursing homes according to their nature (advanced age, sickly, frail).

2. the design of Recreational and sports venues for the elderly in nursing homes should be based on the safety principle of preventing falls and overcrowding.

3. whether the fitness needs of elderly patients in nursing homes are met. Indicators:

1. the per capita area of activity space in the nursing home is set up to fully ensure that the Recreational sports and exercise of elderly patients are carried out.

2. The living safety standards of nursing homes are also applicable to the design of Recreational and sports venues for the elderly.

Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression

Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression

Content:

1. support the sports colleges of universities that have the conditions to train Specialist sports instructors who specialize in Recreational sports for elderly people with depression.
2. to train a group of complex medical and nursing personnel in the medical rehabilitation programs of universities that combine the instruction of Recreational sports for the elderly with the treatment of elderly patients with depression.
3. Encourage and support existing instructors specializing in recreational sports for the elderly to pursue further training and adapt to the changing needs of elderly patients.

Indicators:

1. The College of Physical Education establishes a specialization or course aimed at instructing geriatric recreational sports, so as to enrich the team of physical education instructors who will conduct recreational sports for elderly patients with depression in the future.

2. In the medical rehabilitation program, increase the number of medical Specialists who are trained to combine the instruction of recreational sports for the elderly with the treatment of elderly patients with depression, and who have certificates related to medical rehabilitation.

3. Set up an annual re-education program for existing instructors specializing in recreational sports for the elderly, and reasonably arrange for the study and further training of these instructors, including the time and funds for further training.

Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to instruct elderly depressed patients in Recreational sports.

Content:

1. Instructors assigned in community institutions should have certain organizational skills, as instructors undertake the task of organizing group sports for elderly patients who live in more dispersed areas.

2. Instructors assigned to village government organizations should also be responsible for publicizing the fact that recreational sports can alleviate the symptoms of depression in the elderly.

3. Instructors assigned to nursing homes should have a certain degree of patience. Indicators:

1. The ratio of instructors assigned to community-based organizations to Elderly depression patients is 1:50.

2. The ratio of instructors assigned to village government organizations to elderly depressed patients is 1:40.

3. The ratio of instructors assigned in nursing homes to elderly depressed patients is 1:30.

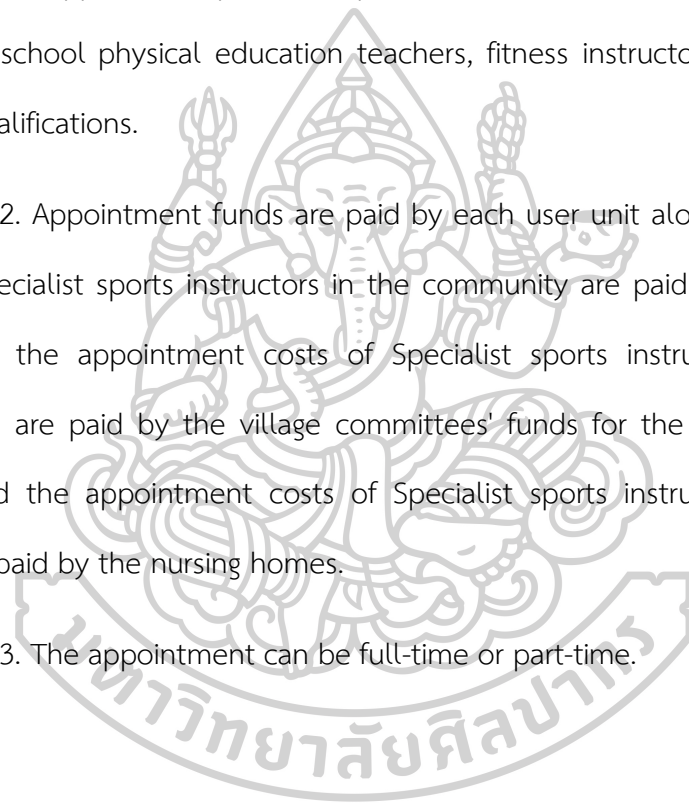
Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors specializing in recreational sports for elderly depressed patients.

Content:

1. Appointed Specialist sports instructors include community sports instructors, school physical education teachers, fitness instructors, and doctors with relevant qualifications.

2. Appointment funds are paid by each user unit alone: the appointment costs of Specialist sports instructors in the community are paid by the community's civil affairs, the appointment costs of Specialist sports instructors in the village committees are paid by the village committees' funds for the management of the elderly, and the appointment costs of Specialist sports instructors in the nursing homes are paid by the nursing homes.

3. The appointment can be full-time or part-time.



Indicators:

1. The appointed Specialist sports instructors must have relevant Specialist qualifications.
2. The term of appointment of the appointed Specialist sports instructor should be for a one- year period, and the review of whether to renew the contract should be conducted before the end of each year.

Strategy 4: Promote the heritage and innovation of recreational sports programs.

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted and with national characteristics.

Content:

1. Focus on popularizing Recreational sports that are popular among elderly people with depression.
2. Targeted selection of Recreational sports programs with therapeutic effects.
3. Selecting Recreational sports with traditional national characteristics.
4. Introduce new popular or current medically proven Recreational sports that reduce the symptoms of depression in the elderly.

Indicators:

1. Setting up a feedback form for elderly depression patients on the Recreational sports and exercise programs they often perform, so as to keep abreast of and adjust the activity programs.

2. Invite sports rehabilitation doctors and members of sports associations to measure and evaluate the Recreational sports and exercise programs of elderly depressed patients at regular intervals to fully understand the effectiveness of the treatment.

Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depression patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

Content:

1. The degree of preference of Recreational sports for men is dominated by limb aerobic activities, vocal music and qigong.

2. Women's preference for recreational sports is based on dance, vocal music, and qigong. Indicators:

1. To set up a registry of Recreational sports program preferences of elderly patients with depression according to the gender characteristics of males, and to appropriately choose to focus on limb aerobic activities, vocal music, qigong, and indoor fitness when setting up the activity programs.

2. Set up a registration form of Recreational sports program preferences of elderly depressed patients by female as gender characteristics, and choose to focus on dance, vocal music, qigong, and senior yoga as appropriate when setting up activity programs.

Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs with age group as the differentiating factor in order to alleviate the symptoms of Elderly depression.

Content:

1. Elderly depression patients whose age group is 60 to 64 years old can choose aerobic activities for limbs with higher activity level and dance category mainly.



2. Elderly patients with depression in the age group of 65 to 69 years old can choose to focus on limb coordination activities with moderate activity level.

3. Patients with depression in the age group of 70 to 74 years old can choose rhythmic activities with less activity.

4. Elderly patients with depression in the age group of 75 to 79 years old can choose sedentary- type activities with the least amount of activity as the main focus.

Indicators:

1. A registration form for the preferences of elderly patients with depression for recreational sports programs is set up in each nursing home, and when setting up the activity programs, the sedentary activities with the least amount of activity are appropriately chosen as the main activities.

2. To set up a registration form for the preferences of elderly patients with depression for recreational sports and exercise programs in each community health center, and to appropriately choose limb coordination activities with a moderate amount of activity and rhythmic activities with a lesser amount of activity when setting up the activity programs.

3. A registration form for the preferences of elderly patients with depression for recreational sports was set up in each village office, and aerobic activities for the limbs with a higher activity level and dance were chosen as appropriate when setting up the activity programs.

Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression

Sub-strategy (ST5.1) 5.1 Instruct older patients with depression on the number of times they should engage in recreational sports during each week.

Content:

The number of times per week that elderly patients with depression should engage in Recreational sports should be: 3 to 4 times for 60-64 years old, 3 times for 65-69 years old, 2 to 3 times for 70-74 years old, and 2 times for 75-79 years old.

Indicators:

1. A sign-in book for each Recreational activity is set up for each geriatric patient with depression, which is faithfully recorded by the patient himself/herself or the administrator.
2. After each recreational sport, the situation can be understood through the feedback of the physical fatigue of the elderly depressed patients and the careful observation of each staff member.

Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

Content:

The daily Recreational sports time should be 2-3 hours for 60-64 years old, 2 hours for 65-69 years old, 1-2 hours for 70-74 years old, and 1 hour for 75-79 years old.

Indicators:

A daily sign-in book for Recreational activities is set up for each elderly patient with depression, where the patient himself/herself or the administrator truthfully records the start and end time of the daily participation in the activity.

Sub-strategy (ST5.3) 5.3 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

Content:

1. Scientific and reasonable setting of the dynamic time of Recreational sports for elderly patients with depression, to ensure that Recreational sports play a relevant therapeutic role, and at the same time, to prevent the elderly patients from overdoing the activity time to cause the danger of cardiac load.

2. Scientifically and reasonably set the static time of Recreational sports for elderly patients with depression, to ensure that Recreational sports play a relevant therapeutic role, and at the same time, to prevent the elderly patients from excessive sedentary activities caused by the danger of blood clots.

Indicators:

1. Set up a registry of the aerobic activity time of the extremities of elderly patients with depression, and mark the lower limit of each activity time as 20 minutes and the upper limit as 45 minutes.

2. Set up a sedentary activity time registry for elderly depressed patients and label the lower limit of 20 minutes and upper limit of 45 minutes per activity.

4.7 To validate draft Strategies

To validate draft Strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” by connoisseurship.

4.7.1 Consideration of drafts and recommendations

Recommendations from Connoisseurship 9 People.

Experts		
No.	Attributes Of Experts	Number
1	Sports rehabilitation physician	1 Persons
2	Psychiatrist	1 Person
3	Chinese medicine practitioner	1 Person
4	Community health general practitioner	1 Person
5	Elderly welfare office staff	1 Person
6	Member of the association for the elderly	1 Person
7	Member of sports association	1 Person
8	Community director	1 Person
9	CEO of pension enterprise	1 Person
Total		9 Persons

The draft was reviewed and recommended using expert workshops:

Table 10 Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong Draft Considerations and Recommendations

Strategies: "Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong"	Comments and recommendations
<p>Vision: To improve the symptoms of depression in the elderly with scientific strategies of Recreational and sports, which improves the physical and mental health, quality of life and other aspects of the elderly, as well as their sense of well-being in life.</p>	-N
<p>Mission: 1. To establish a financial subsidy system based on multi-sectoral cooperation by the government, and to raise funds from various social organizations as a supplementary way of financial security. 2. To do a good job of maintaining, renovating, upgrading and building Recreational and sports venues, so as to make a good foundation for venues to reduce the symptoms of elderly depression patients.</p>	-N

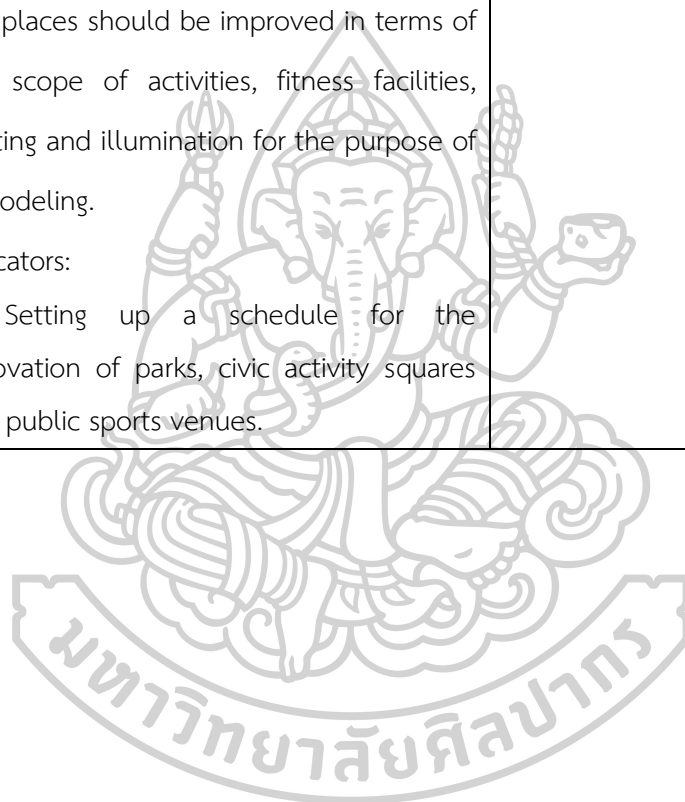
Strategies: "Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong"	Comments and recommendations
<p>3. To cultivate, allocate and appoint sports instructors who specialize in Recreational sports for elderly patients with depression in a long-term and targeted manner, so as to achieve the purpose of improving the symptoms of depression in elderly patients with depression in a more scientific and targeted manner.</p> <p>4. Do a good job in the inheritance and innovation of Recreational sports programs, both in line with the needs of the elderly patients with depression in their own physical conditions, but also to make them physically and mentally pleasurable sports activity programs.</p> <p>5. Scientifically and reasonably arrange the Recreational sports time of elderly patients with depression to achieve the purpose of improving symptoms.</p>	
<p>Strategy 1: Financial Subsidies Strategy 2: Recreational Sports Venues</p> <p>Strategy 3 : Recreational Sports Instructors</p> <p>Strategy 4: Recreational Sports Programs</p> <p>Strategy 5: Recreational Sport Time</p>	-N
<p>Strategy 1: Establish a subsidy method that combines multiple sources of funding by multiple payers.</p>	

<p>Sub-strategy (SO1.1) 1.1 Establish a funding subsidy system that consists of multiple government departments working together.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. the people's government should set out from the annual financial budget from the funding for the aging program to expend the funding for elderly depressed people to engage in Recreational and sports activities. 2. The government's civil affairs department shall set out from the budget for geriatric disease treatment the funds for spending on recreational sports for elderly depressed patients. <p>Indicators:</p> <ol style="list-style-type: none"> 1. The proportion of the budget is drawn in accordance with the Regulations on the Protection of the Rights and Interests of the Elderly in Guangdong Province. 2. The relevant expenditure budget of the civil affairs department is approved on the basis of each administrative unit application. For example, each community is the unit of application. 	<p>- Edit:</p> <p>Content:</p> <ol style="list-style-type: none"> 3. Administrative units at the grass-roots level set aside funds for Recreational and sports activities for elderly persons with depression from the funds for activities for the elderly. <p>- Edit:</p> <p>Indicators:</p> <ol style="list-style-type: none"> 3. Specific reference can be made to the previous year's requested funding for each applicant. 4. The administrative unit at the grass-roots level reviews and pays for each activity request. 5. Funds should be placed on time, in full and with flexibility and variability.
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<p>Sub-strategy (WO1.1) 1.2 Fund-raising approach by various social organizations to assist in raising funds for Recreational and sports activities for the elderly with depression.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Fund-raising activities to be organized by local hometown associations so that local residents and villagers who work outside their home districts can provide financial support to elderly persons with depression when they engage in recreational sports in their districts. 2. Organize sponsorship and donation activities by local chambers of commerce, so that business operators with successful careers and rich funds who work outside the home can subsidize 	<p>-Edit:</p> <p>Content:</p> <ol style="list-style-type: none"> 4. The elderly sports associations to apply for and pay for relevant Recreational sports for elderly patients with depression. <p>Indicators:</p> <ol style="list-style-type: none"> 4. The title and cooperative enterprises must provide legal business license to prevent the bad influence from unqualified products or enterprises. 5. The Elderly Sports Association will pay the required funds as needed after receiving and reviewing the application for activity funding.
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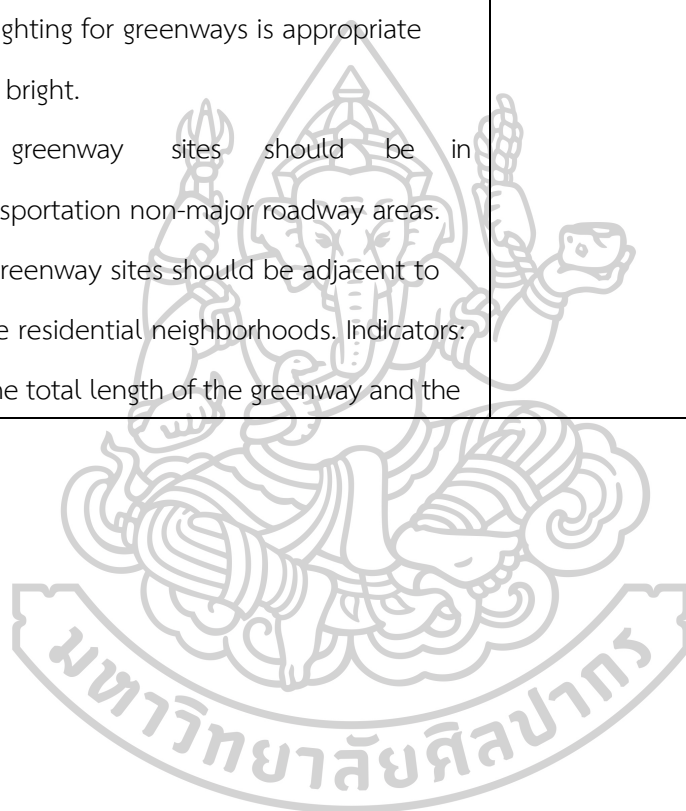
<p>the activities of elderly patients.</p> <p>3. To cooperate with relevant enterprises to conduct title or purely subsidized Recreational sports for the elderly.</p> <p>Indicators:</p> <p>1. Setting up an audit system for the fund-raising funds of the hometown associations to ensure the source and utilization of the funds.</p> <p>2. Involve the accounting department of the Chamber in the distribution of sponsorship funds.</p> <p>3. set up a schedule of funds used for each event and publicize it to the public.</p>	
<p>Sub-strategy (WT1.1) 1.3 Charge an activity fee for each elderly patient who engages in recreational sports.</p> <p>Content:</p> <p>Activity fees for elderly patients can be appropriately charged for each recreational sport.</p> <p>Indicators:</p> <p>Try to expand the upper limit of the number of people in the organization of the number of people can be equalized to share the cost, thus reducing the expenditure of elderly patients.</p>	<p>-Should be deleted, elderly patients should not be charged a fee to prevent elderly patients from not attending because they have to pay a fee.</p>
<p>Strategy 2: Do a good job of maintaining, renovating, upgrading, and constructing Recreational and sports venues.</p>	

<p>Sub-Strategy (WO2.1) 2.1Appropriate renovation of existing parks and civic activity squares.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. open up special areas suitable for Recreational sports for the elderly. 2. The maintenance and remodeling of the places should be improved in terms of the scope of activities, fitness facilities, lighting and illumination for the purpose of remodeling. <p>Indicators:</p> <ol style="list-style-type: none"> 1. Setting up a schedule for the renovation of parks, civic activity squares and public sports venues. 	-N
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<p>2. Setting up a consultation form for the remodeling of parks, civic activity squares, and public sports venues.</p> <p>3. Publicize the progress of venue renovation on a regular basis.</p>	
<p>Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Set up age-appropriate characteristic activity areas for the elderly. For example, the depth of swimming pools for the elderly should be no more than 1.5 meters. 2. install non-slip, anti-drop, and power-assisted flooring devices and handrails in activity venues. <p>Indicators:</p> <ol style="list-style-type: none"> 1. whether the area of the activity space and the number of anti-slip, anti-drop and power-assisted flooring devices and handrails are reasonably configured. 2. whether the marginal benefits of public sports services are enhanced. 3. timed statistics on whether the venues renovated have effectively enhanced the coverage of the venues. 	-N

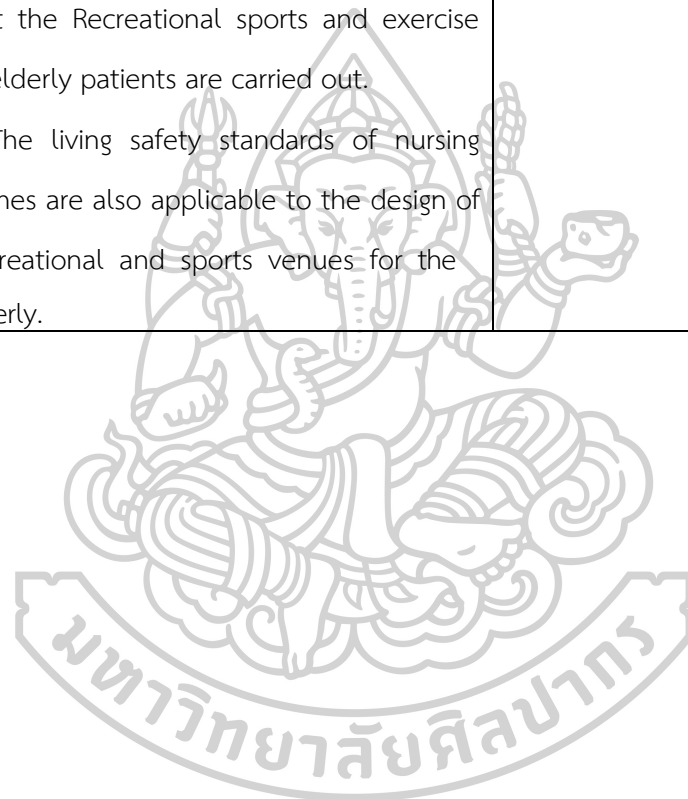
<p>Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.</p> <p>Contents:</p> <ol style="list-style-type: none"> 1. The planned sites for greenways must be level and safe. 2. lighting for greenways is appropriate and bright. 3. greenway sites should be in transportation non-major roadway areas. 4. greenway sites should be adjacent to large residential neighborhoods. Indicators: <ol style="list-style-type: none"> 1. the total length of the greenway and the 	<p>-N</p>
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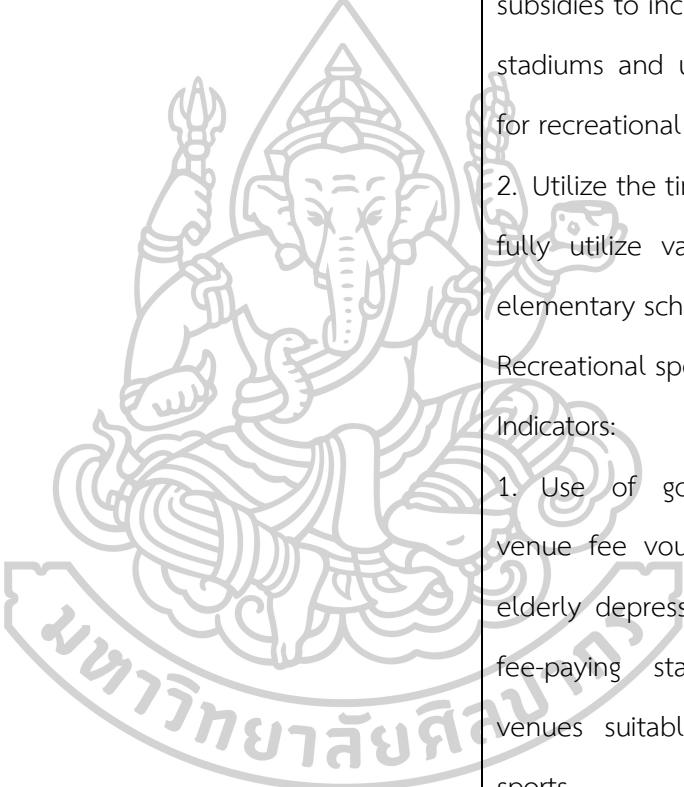


<p>total number of streetlights and the spacing of each streetlight.</p> <p>2. data related to the siting of the greenway.</p> <p>3. Whether it meets the proximity needs of elderly depressed people for morning and evening low-intensity activities.</p>	
<p>Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.</p> <p>Content:</p> <p>1. The site selection and design of activity venues should be based on the principle of proximity, and fitness areas should be designed in the open space next to the residences of the elderly.</p> <p>2. The fitness area of the activity place should be equipped with community fitness equipment.</p> <p>Indicators:</p> <p>1. The design of activity places should be radiated outward from the radius of the residence of the elderly.</p> <p>2. The fitness equipment equipped in the district should comply with national safety standards.</p> <p>3. The selection criteria for fitness equipment equipped in the district are</p>	<p>-Edit:</p> <p>Content:</p> <p>2. The siting of sports venues should meet the requirement of convenient transportation.</p> <p>3. The site of the exercise place should be chosen in a place where the terrain is safe.</p> <p>Indicators:</p> <p>1. The design of activity places should be radiated outward from the radius of the residence of the elderly, and should also be easily accessible.</p> <p>2. The location of the exercise place should be in accordance with the building safety standards.</p>

<p>easy to dismantle, easy to repair and easy to use.</p> <p>4. Whether the fitness needs of the elderly in the community and village committees are met.</p>	
<p>Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. design Recreational and sports venues for the elderly depressed people within nursing homes according to their nature (advanced age, sickly, frail). 2. the design of Recreational and sports venues for the elderly in nursing homes 	-N

<p>should be based on the safety principle of preventing falls and overcrowding.</p> <p>3. whether the fitness needs of elderly patients in nursing homes are met.</p> <p>Indicators:</p> <p>1. the per capita area of activity space in the nursing home is set up to fully ensure that the Recreational sports and exercise of elderly patients are carried out.</p> <p>2. The living safety standards of nursing homes are also applicable to the design of Recreational and sports venues for the elderly.</p>	
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<p>Sub-Strategy (WO2.2) 2.6-N</p> 	<p>-Increase:</p> <p>Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.</p> <p>Strategies:</p> <ol style="list-style-type: none"> 1. Use government and community subsidies to increase the use of fee-paying stadiums and unit sports venues suitable for recreational sports for the elderly. 2. Utilize the time difference method to fully utilize vacant sports venues in elementary school after school hours for Recreational sports for the elderly. <p>Indicators:</p> <ol style="list-style-type: none"> 1. Use of government or community venue fee vouchers issued to registered elderly depressed persons to fully utilize fee-paying stadiums and unit sports venues suitable for elderly recreational sports. 2. Schools set up activity space management methods to rationalize Recreational sports for the elderly.
<p>Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression</p>	
<p>Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression</p> <p>Content:</p>	<p>-N</p>

1. Support the sports colleges of universities that have the conditions to train Specialist sports instructors who specialize in Recreational sports for elderly people with depression.

2. To train a group of complex medical and nursing personnel in the medical rehabilitation programs of universities that combine the instruction of Recreational sports for the elderly with the treatment of elderly patients with depression.

3. Encourage and support existing instructors specializing in recreational sports for the elderly to pursue further training and adapt to the changing needs of elderly patients.

Indicators:

1. The College of Physical Education establishes a specialization or course aimed at instructing geriatric recreational sports, so as to enrich the team of physical education instructors who will conduct recreational sports for elderly patients with depression in the future.

2. In the medical rehabilitation program, increase the number of medical Specialists who are trained to combine the instruction of recreational sports for the elderly with

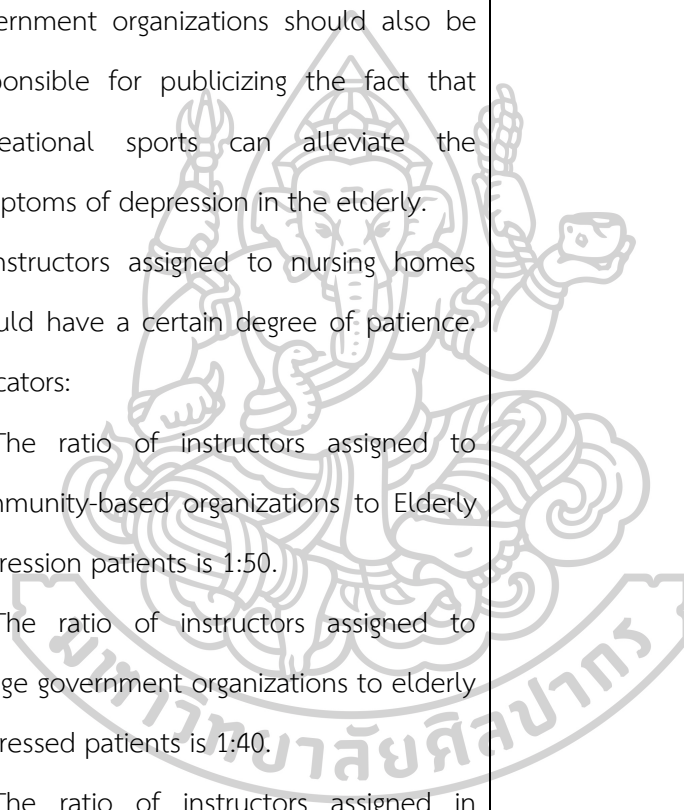
the treatment of elderly patients with depression, and who have certificates related to medical rehabilitation.

3. Set up an annual re-education program for existing instructors specializing in recreational sports for the elderly, and reasonably arrange for the study and further training of these instructors, including the time and funds for further training.

Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to instruct elderly depressed patients in Recreational sports.

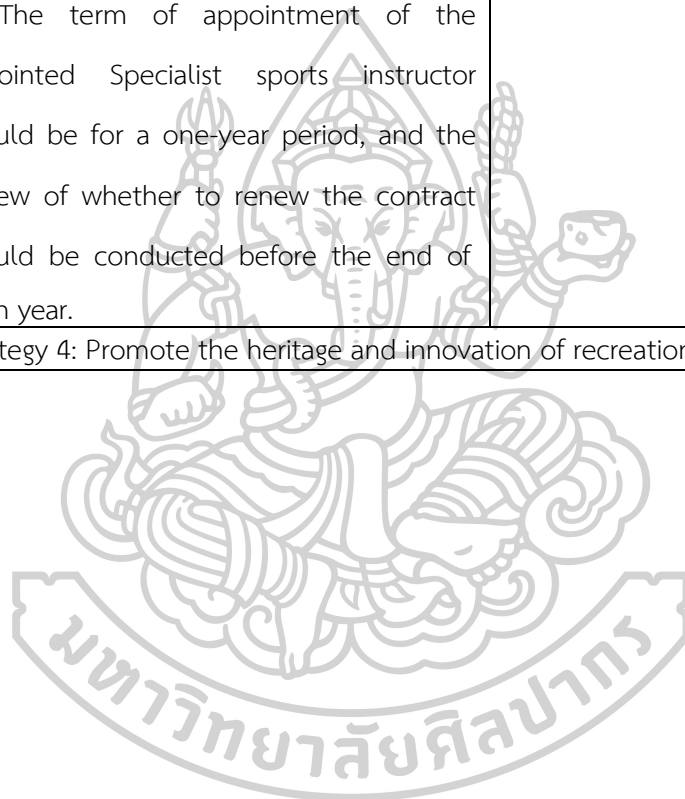
Content:



<p>1. Instructors assigned in community institutions should have certain organizational skills, as instructors undertake the task of organizing group sports for elderly patients who live in more dispersed areas.</p> <p>2. Instructors assigned to village government organizations should also be responsible for publicizing the fact that recreational sports can alleviate the symptoms of depression in the elderly.</p> <p>3. Instructors assigned to nursing homes should have a certain degree of patience.</p> <p>Indicators:</p> <p>1. The ratio of instructors assigned to community-based organizations to Elderly depression patients is 1:50.</p> <p>2. The ratio of instructors assigned to village government organizations to elderly depressed patients is 1:40.</p> <p>3. The ratio of instructors assigned in nursing homes to elderly depressed patients is 1:30.</p>	
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<p>Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors specializing in recreational sports for elderly depressed patients.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Appointed Specialist sports instructors include community sports instructors, school physical education teachers, fitness instructors, and doctors with relevant qualifications. 2. Appointment funds are paid by each user unit alone: the appointment costs of Specialist sports instructors in the community are paid by the community's civil affairs, the appointment costs of Specialist sports instructors in the village committees are paid by the village committees' funds for the management of the elderly, and the appointment costs of Specialist sports instructors in the nursing homes are paid by the nursing 	<p>-Edit:</p> <p>Content:</p> <ol style="list-style-type: none"> 4. The criteria for appointment may be based on professionalism and patience as the main requirements. 5. The appointed mentor must give sufficient time to the elderly patients with depression for guidance. 6. The appointed instructor should fulfill the requirement of being able to adjust the mood of the elderly patients. <p>Indicators:</p> <ol style="list-style-type: none"> 3. A work score sheet should be set up for each Recreational sports instructor, and the elderly patients with depression who participate in Recreational sports should be rated by the patients themselves or by the management staff after each activity. 4. The scores include: whether the sports instructor of the recreational sports is qualified for the job and whether the
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<p>homes.</p> <p>3. The appointment can be full-time or part-time.</p> <p>Indicators:</p> <p>1. The appointed Specialist sports instructors must have relevant Specialist qualifications.</p> <p>2. The term of appointment of the appointed Specialist sports instructor should be for a one-year period, and the review of whether to renew the contract should be conducted before the end of each year.</p>	<p>instruction is Specialist.</p>
<p>Strategy 4: Promote the heritage and innovation of recreational sports programs.</p>	



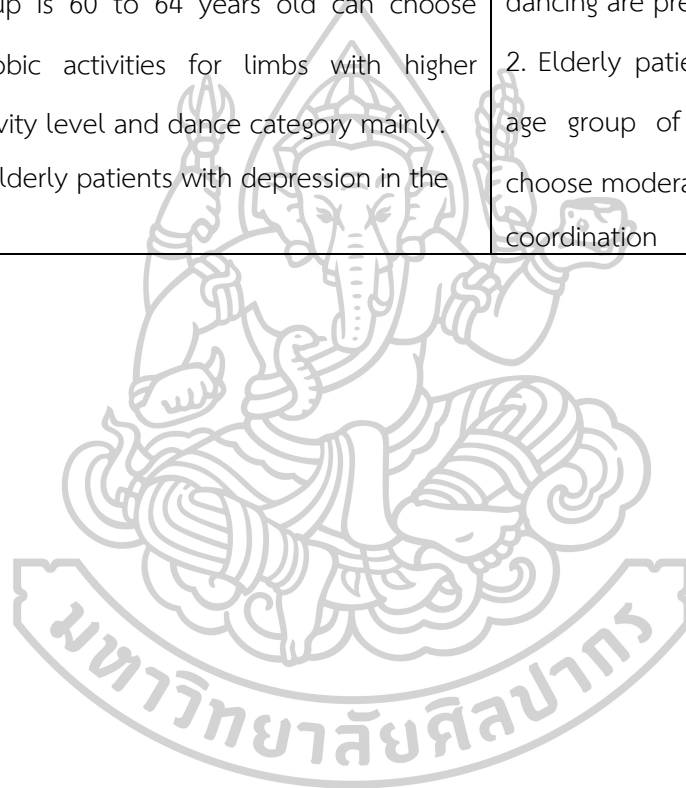
<p>Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted and with national characteristics.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Focus on popularizing Recreational sports that are popular among elderly people with depression. 2. Targeted selection of Recreational sports programs with therapeutic effects. 3. Selecting Recreational sports with traditional national characteristics. 4. Introduce new popular or current medically proven Recreational sports that reduce the symptoms of depression in the elderly. <p>Indicators:</p> <ol style="list-style-type: none"> 1. Setting up a feedback form for elderly depression patients on the Recreational sports and exercise programs they often perform, so as to keep abreast of and adjust the activity programs. 2. Invite sports rehabilitation doctors and members of sports associations to measure and evaluate the Recreational sports and exercise programs of elderly depressed patients at regular intervals to fully understand the effectiveness of the treatment. 	<p>-Edit:</p> <p>Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Focus on popularizing Recreational sports and exercise programs that are popular among elderly people with depression. Take walking and square dancing as preferred. 2. Targeted selection of Recreational sports programs with therapeutic effects. Qigong and sword dancing are preferred. 3. Select Recreational sports with national traditional characteristics. Taiji and Baduanjin are preferred. 4. Introducing new popular or current medically proven recreational sports that reduce the symptoms of depression in elderly depression. Goalball, frisbee games, table games are preferred. <p>Indicators:</p> <ol style="list-style-type: none"> 3. The sports program should be characterized by diversity, fun and innovation. 4. the sport program should contribute to the interactivity between patients.
<p>Sub-strategy (ST4.1) 4.2 Using male and</p>	<p>-Edit:</p>

<p>female gender as the differentiating factors, according to the preference level of the elderly depression patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. The degree of preference of Recreational sports for men is dominated by limb aerobic activities, vocal music and qigong. 2. Women's preference for recreational sports is based on dance, vocal music, and qigong. <p>Indicators:</p> <ol style="list-style-type: none"> 1. To set up a registry of Recreational sports program preferences of elderly patients with depression according to the gender characteristics of males, and to appropriately choose to focus on limb aerobic activities, vocal music, qigong, and indoor fitness when setting up the activity programs. 2. Set up a registration form of Recreational sports program preferences of elderly depressed patients by female as gender characteristics, and choose to focus 	<p>Content:</p> <ol style="list-style-type: none"> 1. The degree of preference of Recreational sports for men is dominated by limb aerobic activities, vocal music and qigong. Walking, jogging, table tennis, Chinese calligraphy, and chess playing were preferred. 2. The degree of preference for recreational sports for women is dominated by dance, vocal music, and qigong. Square dancing, chorus, and making handicrafts are preferred.
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on dance, vocal music, qigong, and senior yoga as appropriate when setting up activity programs.



<p>Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs with age group as the differentiating factor in order to alleviate the symptoms of Elderly depression.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Elderly depression patients whose age group is 60 to 64 years old can choose aerobic activities for limbs with higher activity level and dance category mainly. 2. Elderly patients with depression in the 	<p>-Edit:</p> <p>Content:</p> <ol style="list-style-type: none"> 1. The age group of 60-64 years old elderly depression patients can choose the aerobic activities of the limbs with stronger activity and dance category mainly. Walking, jogging, table tennis and square dancing are preferred. 2. Elderly patients with depression in the age group of 65 to 69 years old can choose moderate activity volume of limb coordination activities. Gymnastics,
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<p>age group of 65 to 69 years old can choose to focus on limb coordination activities with moderate activity level.</p> <p>3. Patients with depression in the age group of 70 to 74 years old can choose rhythmic activities with less activity.</p> <p>4. Elderly patients with depression in the age group of 75 to 79 years old can choose sedentary-type activities with the least amount of activity as the main focus.</p> <p>Indicators:</p> <p>1. A registration form for the preferences of elderly patients with depression for recreational sports programs is set up in each nursing home, and when setting up the activity programs, the sedentary activities with the least amount of activity are appropriately chosen as the main activities.</p> <p>2. To set up a registration form for the preferences of elderly patients with depression for recreational sports and exercise programs in each community health center, and to appropriately choose limb coordination activities with a moderate amount of activity and rhythmic activities with a lesser amount of activity when setting up the activity programs.</p>	<p>sword practice, and indoor fitness are preferred.</p> <p>3. Elderly patients with depression in the age group of 70 to 74 years old can choose rhythmic activities with less activity. Tai Chi, qigong, and senior yoga are preferred.</p> <p>4. Elderly patients with depression in the age group of 75 to 79 years old can choose sedentary activities with the least amount of activity. Chinese calligraphy, playing chess, making handicrafts, chorus and playing musical instruments are preferred.</p>
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3. A registration form for the preferences of elderly patients with depression for recreational sports was set up in each village office, and aerobic activities for the limbs with a higher activity level and dance were chosen as appropriate when setting up the activity programs.



Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression

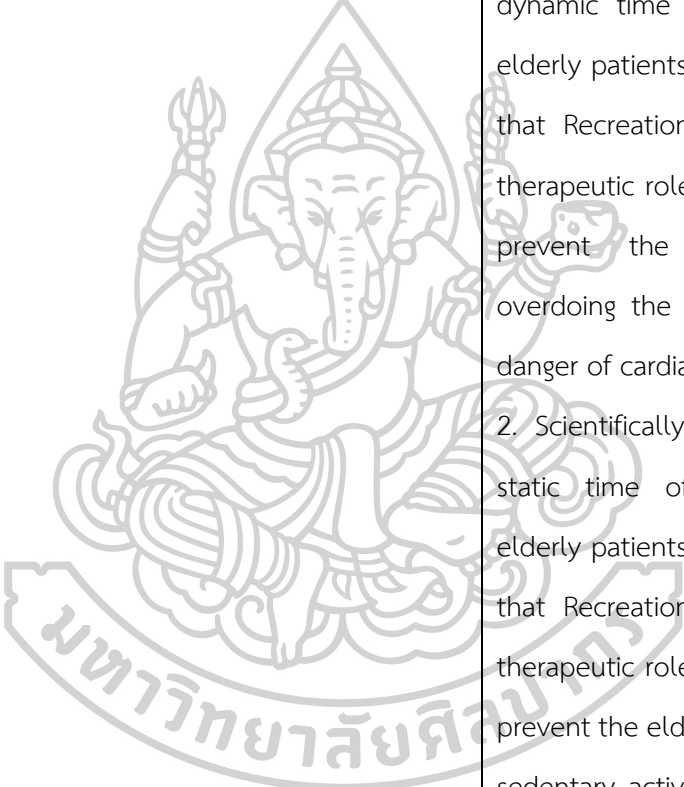
Sub-strategy (ST5.1) 5.1 Instruct older patients with depression on the number of times they should engage in recreational sports during each week. Content:	-N
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<p>The number of times per week that elderly patients with depression should engage in Recreational sports should be: 3 to 4 times for 60-64 years old, 3 times for 65-69 years old, 2 to 3 times for 70-74 years old, and 2 times for 75-79 years old.</p> <p>Indicators:</p> <ol style="list-style-type: none">1. A sign-in book for each Recreational activity is set up for each geriatric patient with depression, which is faithfully recorded by the patient himself/herself or the administrator.2. After each recreational sport, the situation can be understood through the feedback of the physical fatigue of the elderly depressed patients and the careful observation of each staff member.	
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<p>Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.</p> <p>Content:</p> <p>The daily Recreational sports time should be 2-3 hours for 60-64 years old, 2 hours for 65-69 years old, 1-2 hours for 70-74 years old, and 1 hour for 75-79 years old.</p> <p>Indicators:</p> <p>A daily sign-in book for Recreational activities is set up for each elderly patient with depression, where the patient himself/herself or the administrator truthfully records the start and end time of the daily participation in the activity.</p>	<p>- Edit:</p> <p>-Content:</p> <p>The daily Recreational sports time should be 2 hours for 60-64 years old, 2 hours for 65-69 years old, 1-2 hours for 70-74 years old, and 1 hour for 75-79 years old.</p>
<p>Sub-strategy (ST5.3) 5.3 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.</p> <p>Content:</p> <p>1. Scientific and reasonable setting of the dynamic time of Recreational sports for elderly patients with depression, to ensure that Recreational sports play a relevant therapeutic role, and at the same time, to prevent the elderly patients from</p>	<p>- Change to sub-Strategy 5.4</p> <p>- Edit:</p> <p>Sub-strategy (ST5.3) 5.3 Number of days per treatment session in which older patients with depression are instructed to engage in recreational physical activity. Content:</p> <p>The number of days per treatment session for guiding elderly depressed patients to engage in recreational sports and</p>

<p>overdoing the activity time to cause the danger of cardiac load.</p> <p>2. Scientifically and reasonably set the static time of Recreational sports for elderly patients with depression, to ensure that Recreational sports play a relevant therapeutic role, and at the same time, to prevent the elderly patients from excessive sedentary activities caused by the danger of blood clots.</p> <p>Indicators:</p> <ol style="list-style-type: none"> 1. Set up a registry of the aerobic activity time of the extremities of elderly patients with depression, and mark the lower limit of each activity time as 20 minutes and the upper limit as 45 minutes. 2. Set up a sedentary activity time registry for elderly depressed patients and label the lower limit of 20 minutes and upper limit of 45 minutes per activity. 	<p>physical activity is based on a change starting at 15 days, improvement at 30 days, and a basic reduction in depressive symptoms after 90 days. So the temporal strategy was organized to be 90 days for a full treatment session. The goal is to refine the temporal nature of the strategy.</p> <p>Indicators:</p> <p>Monthly, daily, and hourly scheduling plans for recreational sports and exercise for elderly depressed patients under the jurisdiction of each community organization, village council, and nursing home.</p>
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<p>Sub-Strategy 5.4</p> 	<p>- Change from Sub-strategy (ST5.3) 5.3 to sub-Strategy 5.4</p> <p>Sub-Strategy 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.</p> <p>Content:</p> <ol style="list-style-type: none"> 1. Scientific and reasonable setting of the dynamic time of Recreational sports for elderly patients with depression, to ensure that Recreational sports play a relevant therapeutic role, and at the same time, to prevent the elderly patients from overdoing the activity time to cause the danger of cardiac load. 2. Scientifically and reasonably set the static time of Recreational sports for elderly patients with depression, to ensure that Recreational sports play a relevant therapeutic role, and at the same time, to prevent the elderly patients from excessive sedentary activities caused by the danger of blood clots. <p>Indicators:</p>
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	<ol style="list-style-type: none"> 1. Set up a registry of the aerobic activity time of the extremities of elderly patients with depression, and mark the lower limit of each activity time as 20 minutes and the upper limit as 45 minutes. 2. Set up a sedentary activity time registry for elderly depressed patients and label the lower limit of 20 minutes and upper limit of 45 minutes per activity.
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4.8 Develop strategies from Connoisseurship

Develop strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” after Recommendation and Suggestions from Connoisseurship.

Revised draft: Recreational Sports Strategies for Depression in Guangdong
Elderly Draft Revised Version

Vision:

To improve the symptoms of depression in the elderly with scientific recreational sports strategies, which improves the physical and mental health, quality of life, and other aspects of the elderly, and also enhances their sense of well-being in life.

Mission:

1. To establish a financial subsidy system based on multi-sectoral cooperation by the government, and to raise funds from various social groups as an auxiliary way of financial security.

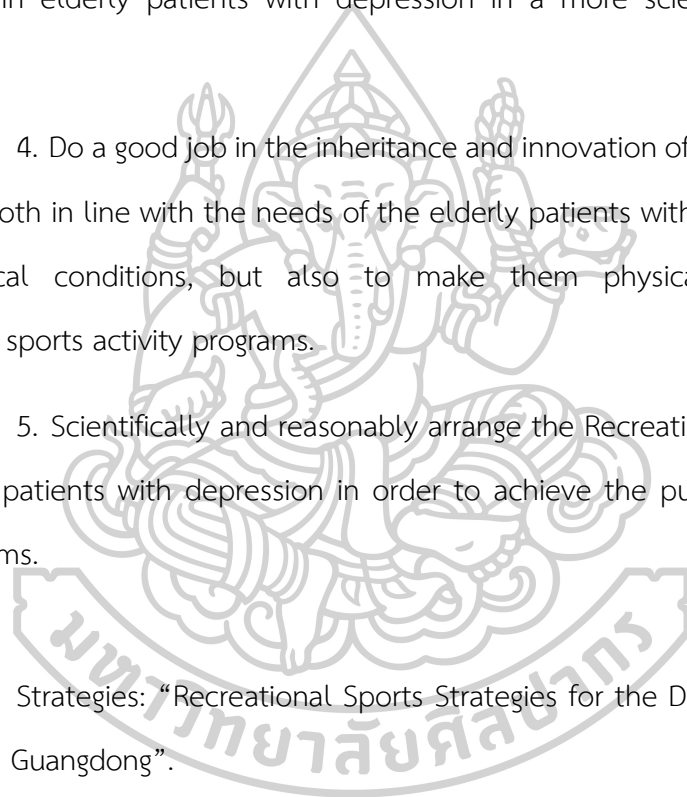
2. To do a good job of maintaining, renovating, upgrading and building Recreational and sports venues, so as to make a good foundation of venues for reducing the symptoms of elderly patients with depression.

3. To cultivate, allocate and appoint sports instructors who specialize in Recreational sports for elderly patients with depression in a long-term and targeted manner, so as to achieve the purpose of improving the symptoms of depression in elderly patients with depression in a more scientific and targeted manner.

4. Do a good job in the inheritance and innovation of Recreational sports programs, both in line with the needs of the elderly patients with depression in their own physical conditions, but also to make them physically and mentally pleasurable sports activity programs.

5. Scientifically and reasonably arrange the Recreational sports time for the elderly patients with depression in order to achieve the purpose of improving the symptoms.

Strategies: “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”.



Components of the strategy:

Strategy 1: Financial Subsidies Strategy 2: Recreational Sports Venues

Strategy 3: Recreational Sports Instructors Strategy 4: Recreational

Sports Programs Strategy 5: Recreational Sport Time

Specifics of the strategy:

Strategic: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong

Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.

Sub-strategy (SO1.1) 1.1 Establish a system of subsidizing funds by multiple government departments working together.

Content:

1. The people's government should set out from the annual budget to spend funds on Recreational sports for elderly depressed people from the budget for geriatric care.

2. The civil affairs department of the government should set out from the budget for the treatment of geriatric diseases the funding for Recreational sports for the elderly with depression.

3. Administrative units at the grass-roots level specify the expenditure on recreational and sports activities for the elderly with depression from the funds for elderly activities. Indicators:

1. The proportion of the budget is drawn in accordance with the Regulations on the Protection of the Rights and Interests of the Elderly in Guangdong Province.

2. The relevant expenditure budget of the civil affairs department is approved on the basis of each administrative unit's application. For example, each community is the unit of application.

3. Specific reference can be made to the previous year's application for funding for each application unit.

4. The administrative unit at the grassroots level will review and disburse the funds on the basis of the matters applied for by each activity.

5. Funds should be disbursed on time, in full, and with flexibility and variability.

Sub-strategy (WO1.1) 1.2 Fund-raising by various social organizations to assist in raising funds for recreational and sports activities for the elderly with depression.

Content:

1. Fund-raising activities should be organized by local hometown associations so that local residents and villagers who work outside their home districts can subsidize the Recreational and sports activities of elderly persons suffering from depression in their districts.

2. Organize sponsorship and donation activities by local chambers of commerce, so that business operators who work outside the home and have successful careers and are rich

in capital can subsidize the activities of elderly patients.

3. Cooperation with relevant enterprises to conduct title or purely subsidized Recreational sports for the elderly.

4. The elderly sports associations to apply for and pay for relevant Recreational sports for elderly patients with depression.

Indicators:

1. Setting up an audit system for the fund-raising funds of the hometown associations to ensure the source and utilization of the funds.

2. The Chamber's accounting department is involved in the distribution of sponsorship funds.

3. Set up a detailed list of funds used for each activity and publicize it to the public.

4. The title and cooperative enterprises must provide legal business license to prevent the bad influence from unqualified products or enterprises.

5. The Elderly Sports Association will pay the required funds as needed after receiving and reviewing the application for activity funding.

Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.

Sub-Strategy (WO2.1) 2.1 Appropriately renovate existing parks and civic activity plazas.

Content:

1. create special areas suitable for recreational sports for the elderly.
- 2 .The maintenance and remodeling of the places should be improved in terms of the scope of activities, fitness facilities, lighting and illumination for the purpose of remodeling.

Indicators:

1. Setting up a schedule for the renovation of parks, civic activity squares and public sports venues.
2. Setting up a consultation form for the remodeling of parks, civic activity squares, and public sports venues.
3. Publicize the progress of venue renovation on a regular basis.

Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.

Content:

1. Set up age-appropriate characteristic activity areas for the elderly. For example, the depth of swimming pools for the elderly should be no more than 1.5 meters.
2. Install non-slip, anti-drop, and power-assisted flooring devices and handrails in activity areas.

Indicators:

1. Whether the area of the activity space and the number of anti-slip, anti-drop and power-assisted flooring devices and handrails are reasonably configured.

2. Whether the marginal benefits of public sports services are enhanced.

3. Timed statistics on whether the venues renovated have effectively enhanced the coverage of the venues.

Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

Content:

1. The planned sites for greenways must be level and safe.

2. Lighting for greenways is appropriate and bright.

3. Greenway sites should be in transportation non-major roadway areas.

4. Greenway sites should be located adjacent to large residential communities. Indicators:

1. The total length of the greenway and the total number of streetlights and the spacing of each streetlight.

2. Data related to the siting of the greenway.

3. Whether it meets the proximity needs of elderly depressed individuals for morning and evening low-intensity activities.

Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

Content:

1. The site selection and design of activity venues should be based on the principle of proximity, and fitness areas should be designed in the open space next to the residences of the elderly.

2. The siting of sports venues should meet the requirement of convenient transportation.

3. The site of the exercise place should be chosen in a place where the terrain is safe.

4. The fitness area of the sports venue should be equipped with fitness equipment for the community.

Indicators:

1. The design of activity places should be radiated outward from the radius of the residence of the elderly, and should also be easily accessible.

2. The location of the exercise place should be in accordance with the building safety standards.

3. The fitness equipment equipped in the area should comply with national safety standards.

4. The fitness equipment equipped in the district selection criteria for easy to remove, easy to repair, easy to use.

5. Whether the fitness area meets the fitness needs of the elderly in the community and village committees.

Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.

Content:

1. Design recreational sports and exercise areas according to the nature of the depressed elderly in nursing homes (advanced age, sickly, frail).

2. The design of recreational sports venues for the elderly in nursing homes should be based on the safety principle of preventing falls and overcrowding.

3. Whether the fitness needs of elderly patients in nursing homes are met.

Indicators:

1. The per capita area of activity space in the nursing home is set up to fully ensure that the Recreational sports and exercise of elderly patients are carried out.

2. The living safety standards of nursing homes also apply to the design of Recreational and sports spaces for the elderly.

Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.

Content:

1. Use government and community subsidies to increase the use of fee-paying stadiums and unit sports venues suitable for recreational sports for the elderly.

2. Utilize the time difference method to fully utilize vacant sports venues in elementary school after school hours for Recreational sports for the elderly.

Indicators:

1. Use of government or community venue fee vouchers issued to registered elderly depressed persons to fully utilize fee-paying stadiums and unit sports venues suitable for elderly recreational sports.

2. Schools set up activity space management methods to rationalize Recreational sports for the elderly.

Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression

Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression

Content:

1. Support the physical education colleges of universities that have the conditions to train Specialist physical education instructors who specialize in Recreational sports for elderly people with depression.

2. Cultivate a group of composite medical and nursing personnel in the medical rehabilitation programs of universities that combine the instruction of Recreational sports for the elderly with the treatment of patients with Elderly depression.

3. Encourage and support existing instructors specializing in recreational sports for the elderly to pursue further training and adapt to the changing needs of elderly patients. Indicators:

1. The College of Physical Education establishes a specialization or course aimed at instructing geriatric recreational sports, so as to enrich the team of physical education instructors who will conduct recreational sports for elderly patients with depression in the future.

2. In the medical rehabilitation program, increase the number of medical Specialists who are trained to combine the instruction of recreational sports for the elderly with the treatment of elderly patients with depression, and who have certificates related to medical rehabilitation.

3. Set up an annual re-education program for existing instructors specializing in recreational sports for the elderly, and reasonably arrange for the study and further training of these instructors, including the time and funds for further training.

Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to guide elderly depressed patients in Recreational sports.

Content:

1. Instructors assigned in community institutions should have certain organizational skills, as instructors undertake the task of organizing group sports for elderly patients who live in more dispersed areas.

2. Instructors assigned to village governmental organizations should also undertake some publicity work that Recreational sports can alleviate the symptoms of depression in the elderly.

3. Instructors assigned to nursing homes should have a certain degree of patience. Indicators:

1. The ratio of instructors assigned to community-based organizations to Elderly depression patients is 1:50.

2. The ratio of instructors assigned to village government organizations to elderly depressed patients is 1:40.

3. The ratio of instructors assigned in nursing homes to elderly depressed patients is 1:30.

Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors who specialize in recreational sports for elderly depressed patients.

Content:

1. Appointment of specialized sports instructors includes community sports instructors, school physical education teachers, fitness instructors, and doctors with relevant qualifications.

2. Appointment funds will be paid by each user unit alone: the appointment costs of Specialist sports instructors in the community will be paid by the community civil affairs, the appointment costs of Specialist sports instructors in the village committees will be paid by the village committees' funds for the management of the elderly, and the appointment costs of Specialist sports instructors in the nursing homes will be paid by the nursing homes.

3. The appointment can be full-time or part-time.

4. The criteria for appointment can be specialist and patience as the main requirements.

5. The appointed mentor must give sufficient time to the elderly patients with depression for guidance.

6. The appointed instructor should fulfill the requirement of being able to adjust the mood of the elderly patients.

Indicators:

1. The appointed Specialist sports instructors must have relevant Specialist qualifications.

2. The term of appointment of the appointed Specialist sports instructors should be for a one-year period, and the review of whether to renew the contract should be conducted before the end of each year.

3. A work score sheet should be set up for each Recreational sports instructor, and the elderly patients with depression who participate in Recreational sports should be rated by the patients themselves or by the management staff after each activity.

4. The scores include: whether the sports instructor of the recreational sports is qualified for the job and whether the instruction is Specialist.

Strategy 4: Promote the heritage and innovation of recreational sports programs.

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.

Content:

1. Focus on popularizing Recreational sports and exercise programs that are popular among elderly people with depression. Take walking and square dancing as preferred.

2. Targeted selection of Recreational sports programs with therapeutic effects. Qigong and sword dancing are preferred.

3. Select Recreational sports with national traditional characteristics. Taiji and Baduanjin are preferred.

4. Introducing new popular or current medically proven recreational sports that reduce the symptoms of depression in elderly depression. Goalball, frisbee games, table games are preferred.

Indicators:

1. Setting up a feedback form for Elderly depression patients on commonly performed Recreational sports programs to keep track of and adjust the activity programs.

2. Invite sports rehabilitation doctors and members of sports associations to measure and evaluate the Recreational sports programs of elderly depressed patients at regular intervals, so as to fully understand the effect of treatment.

3. The sports program should be characterized by diversity, fun and innovation.

4. The sport program should contribute to the interactivity between patients.

Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depressed patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

Content:

1. The degree of preference of Recreational sports for men is dominated by limb aerobic activities, vocal music and qigong. Walking, jogging, table tennis, Chinese calligraphy, and chess playing were preferred.

2. The degree of preference for recreational sports for women is dominated by dance, vocal music, and qigong. Square dancing, chorus, and making handicrafts are preferred. Indicators:

1. Setting up a registry of Recreational sports program preferences of elderly depressed patients according to male as gender characteristics, and appropriately choosing to focus on limb aerobic activities, vocal music, qigong, and indoor fitness when setting up activity programs.

2. Set up a registration form of Recreational sports program preferences of elderly depressed patients by female as gender characteristics, and choose to focus on dance, vocal music, qigong, and senior yoga as appropriate when setting up activity programs. Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs to alleviate the symptoms of Elderly depression by taking the age group as the differentiating factor.

Content:

1. The age group of 60-64 years old elderly depression patients can choose the aerobic activities of the limbs with stronger activity and dance category mainly. Walking, jogging, table tennis and square dancing are preferred.

2. Elderly patients with depression in the age group of 65 to 69 years old can choose moderate activity volume of limb coordination activities. Gymnastics, sword practice, and indoor fitness are preferred.

3. Elderly patients with depression in the age group of 70 to 74 years old can choose rhythmic activities with less activity. Tai Chi, qigong, and senior yoga are preferred.

4. Elderly patients with depression in the age group of 75 to 79 years old can choose sedentary activities with the least amount of activity. Chinese calligraphy, playing chess, making handicrafts, chorus and playing musical instruments are preferred.

Indicators:

1. Setting up a registration form for the preference of Recreational sports programs for elderly depressed patients in each nursing home, and appropriately choosing sedentary activities with the least amount of activity as the main choice when setting up the activity programs.

2. To set up a registration form for the preferences of elderly patients with depression for recreational sports and exercise programs in each community health center, and to appropriately choose limb coordination activities with a moderate amount of activity and rhythmic activities with a lesser amount of activity when setting up the activity programs.

3. A registration form for the preferences of elderly patients with depression for recreational sports was set up in each village office, and aerobic activities for the limbs with a higher activity level and dance were chosen as appropriate when setting up the activity programs.

Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression

Sub-strategy (ST5.1) 5.1 Instruct elderly depressed patients on the number of times they should engage in Recreational sports in each week.

Content:

The number of times per week that elderly patients with depression should engage in Recreational sports should be: 3 to 4 times for 60-64 years old, 3 times for 65-69 years old, 2 to 3 times for 70-74 years old, and 2 times for 75-79 years old.

Indicators:

1. A sign-in book for each Recreational activity is set up for each geriatric patient with depression, which is faithfully recorded by the patient himself/herself or the administrator.

2. After each recreational sport, the situation can be understood through the feedback of the physical fatigue of the elderly depressed patients and the careful observation of each staff member.

Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

Content:

The daily Recreational sports time should be 2 hours for 60-64 years old, 2 hours for 65-69 years old, 1-2 hours for 70-74 years old, and 1 hour for 75-79 years old.

Indicators:

A daily sign-in book for Recreational activities is set up for each elderly patient with depression, with the patient himself/herself or the administrator truthfully recording the start and end time of daily participation.

Sub-strategy (ST5.3) 5.3 Number of days per treatment session in which older patients with depression are instructed to engage in recreational physical activity.

Content:

The number of days per treatment session for guiding elderly depressed patients to engage in recreational sports and physical activity is based on a change

starting at 15 days, improvement at 30 days, and a basic reduction in depressive symptoms after 90 days. So, the temporal strategy was organized to be 90 days for a full treatment session. The goal is to refine the temporal nature of the strategy.

Indicators:

Monthly, daily, and hourly scheduling plans for recreational sports and exercise for elderly depressed patients under the jurisdiction of each community organization, village council, and nursing home.

Sub-Strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

Content:

1. Scientific and reasonable setting of the dynamic time of Recreational sports for elderly patients with depression, to ensure that Recreational sports play a

relevant therapeutic role, and at the same time, to prevent the elderly patients from overdoing the activity time to cause the danger of cardiac load.

2. Scientifically and reasonably set the static time of Recreational sports for elderly patients with depression, to ensure that Recreational sports play a relevant therapeutic role, and at the same time, to prevent the elderly patients from excessive sedentary activities caused by the danger of blood clots.

Indicators:

1. Set up a registry of the aerobic activity time of the extremities of elderly patients with depression, and mark the lower limit of each activity time as 20 minutes and the upper limit as 45 minutes.

2. Set up a sedentary activity time registry for elderly depressed patients and label the lower limit of 20 minutes and upper limit of 45 minutes per activity.



Picture-3: Pyramid Diagram

4.9 Evaluate the feasibility of the draft strategy

4.9.1 Feasibilities of Interview 12 People:

In response to the above analysis and evaluation of the strategy's environmental situation (including: strengths, weaknesses, opportunities, threats) by Specialists, this study again used interviews in order to evaluate the strategy's environmental situation in a better and more detailed way to see whether the above analysis is accurate and whether it is in line with the reality of today's society.

In order to ensure the comparability of the interviews, Specialists from different fields were also used to analyze and evaluate the environment of the strategies, including:

- (1) Sports rehabilitation physician
- (2) Psychiatrist
- (3) Chinese medicine practitioner
- (4) Community Health General Practitioner
- (5) Staff of elderly associations
- (6) Staff of elderly welfare departments
- (7) Staff of community administration departments
- (8) Staff of sports associations
- (9) CEO of elderly enterprises
- (10) Exercise instructors
- (11) Family members of elderly depression patients
- (12) Professor, Faculty of Social Sciences

NO.	Content	Stakeholders												Total
		1	2	3	4	5	6	7	8	9	10	11	12	
14	Sub-strategy (WO2.2) 2.6	√	√	√	O	√	√	√	√	√	—	√	√	10
15	Strategy 3	√	√	√	√	√	√	√	√	√	√	√	√	12
16	Sub-Strategy (SO3.1) 3.1	√	√	√	√	√	√	√	—	√	√	√	√	12
17	Sub-strategy (WT3.1) 3.2	√	√	√	—	√	√	√	√	√	√	√	√	11
18	Sub-strategy (WO3.1) 3.3	√	√	√	√	√	√	√	√	√	√	√	√	12
19	Strategy 4	√	√	√	√	√	√	√	√	√	√	√	√	12
20	Sub-strategy (WO4.1) 4.1	√	√	√	√	√	√	√	√	√	√	√	√	12
21	Sub-strategy (ST4.1) 4.2	√	√	√	√	√	√	√	√	√	√	√	√	12
22	Sub-strategy (ST4.2) 4.3	√	√	√	√	√	√	√	√	√	√	√	√	12
23	Strategy 5	√	√	√	√	√	√	√	√	√	√	√	√	12
24	Sub-strategy (ST5.1) 5.1	√	√	√	√	√	√	√	√	√	√	√	√	12
25	Sub-strategy (ST5.2) 5.2	√	√	√	√	√	√	√	√	√	√	√	√	12
26	Sub-strategy (ST5.3) 5.3	√	√	√	√	√	√	√	√	√	√	√	√	12
27	Sub-strategy (ST5.4) 5.4	√	—	√	√	√	√	√	√	√	√	√	O	10
28	general strategy	--	--	--	--	--	--	--	--	--	--	--	--	--

(Explain: “√”=Agree, “—”=Not
Sure, “O”=Disagree.)

Conclusion:

No.5: Stakeholder (7) disagreed Sub-strategy (SO1.1) 1.1 Establish a system of subsidizing funds by multiple government departments working together.

No.14: Stakeholder (4) disagreed and Stakeholder (10) is not sure Sub-strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.

No.16: Stakeholder (8) is not sure Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression.

No.17: Stakeholder (4) is not sure Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to guide elderly depressed patients in Recreational sports.

No. 27: Stakeholder (2) is not sure and Stakeholder (12) disagreed Sub-strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

The rest of the strategies were unanimously confirmed by 12 people.

4.9.2 Evaluate the feasibility by questionnaire 14 people.

In order to better develop Strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”, after completing the draft of “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”, specialists from relevant different fields evaluate the feasibility of the draft strategy, which included:

(1) Sports rehabilitation physician

(2) Psychiatrist-1

- (3) Psychiatrist-2
- (4) Psychiatrist-3
- (5) Chinese medicine practitioner
- (6) Community health general practitioner
- (7) Staff of elderly associations
- (8) Staff of elderly welfare departments
- (9) Staff of community administration departments
- (10) Staff of sports associations
- (11) CEOs of elderly enterprises
- (12) Exercise instructors
- (13) Family members of elderly depression patients
- (14) University professor

Criteria for the assessment were developed:

A total of five levels were set for the feasibility assessment scores of the strategy, as follows:

- 1 point: The feasibility of the strategy is at a very low level.
- 2 points: The feasibility of the strategy is at a low level.
- 3 points: The feasibility of the strategy is at a moderate level.
- 4 points: The feasibility of the strategy is at a high level.
- 5 points: The feasibility of the strategy is at the highest level.

Once the experts had totaled the evaluation values for each evaluation item and obtained the median, the criteria for the trend level were determined as follows:

1.00 - 1.49: The feasibility of the strategy is at a very low level.

1.50 - 2.49: The feasibility of the strategy is at a low level.

2.50 - 3.49: The feasibility of the strategy is at a moderate level.

3.50 - 4.49: The feasibility of the strategy is at a high level.

4.50 - 5.00: The feasibility of the strategy is at the highest level.

The final criteria for the evaluation were determined as follows: the content of a strategy with a mean value of 3.50 or higher and a standard deviation value of no more than 1.00 is eligible for use. (Zhao Xican, 2011)

Table 12 Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong draft Feasibility Assessment

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Vision: To improve the symptoms	4.57	0.49	the highest level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
<p>of depression in the elderly with scientific recreational sports strategies, which improves the physical and mental health, quality of life, and other aspects of the elderly, and also enhances their sense of well-being in life.</p>			
<p>Mission:</p> <ol style="list-style-type: none"> 1. To establish a financial subsidy system based on multi-sectoral cooperation by the government, and to raise funds from various social groups as an auxiliary way of financial security. 2. To do a good job of maintaining, renovating, upgrading and building Recreational and sports 	4.29	0.45	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
<p>venues, so as to make a good foundation of venues for reducing the symptoms of elderly patients with depression.</p> <p>3. To cultivate, allocate and appoint sports instructors who specialize in Recreational sports for elderly patients with depression in a long-term and targeted manner, so as to achieve the purpose of improving the symptoms of depression in elderly patients with depression in a more scientific and targeted manner.</p> <p>4. Do a good job in the</p>			

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
<p>inheritance and innovation of Recreational sports programs, both in line with the needs of the elderly patients with depression in their own physical conditions, but also to make them physically and mentally pleasurable sports activity programs.</p> <p>5. Scientifically and reasonably arrange the Recreational sports time for the elderly patients with depression in order to achieve the purpose of improving the symptoms.</p>			
Strategy:			

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
<p>Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.</p> <p>Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.</p> <p>Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression</p> <p>Strategy 4: Promote the heritage and innovation of recreational sports programs.</p> <p>Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression</p>	4.36	0.48	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.			
Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.	4.32	0.47	high level
Sub-strategy (SO1.1) 1.1 Establish a system of subsidizing funds by multiple government departments working together.	4.21	0.41	high level
Sub-strategy (WO1.1) 1.2 Fund-raising by various social organizations to assist in raising funds for recreational and sports activities for the elderly with depression.	4.43	0.49	high level
Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.			
Strategy 2: Maintain, renovate, upgrade, and construct recreational and	4.43	0.49	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
sports venues properly.			
Sub-Strategy (WO2.1) 2.1 Appropriately renovate existing parks and civic activity plazas.	4.36	0.48	high level
Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.	4.07	0.26	high level
Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase	4.79	0.41	the highest level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
recreational and sports venues for the elderly.			
Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.	4.29	0.45	high level
Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.	4.71	0.45	the highest level
Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.	4.36	0.48	high level
Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression			
Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression	4.36	0.48	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression	4.29	0.45	high level
Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to guide elderly depressed patients in Recreational sports.	4.57	0.49	the highest level
Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors who specialize in recreational sports for elderly depressed patients.	4.21	0.41	high level

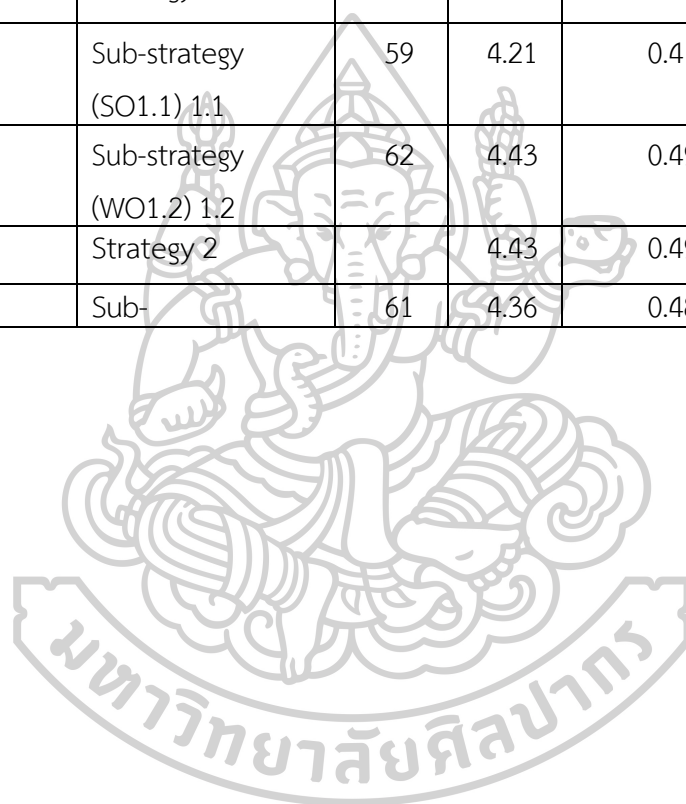
Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Strategy 4: Promote the heritage and innovation of recreational sports programs.			
Strategy 4: Promote the heritage and innovation of recreational sports programs.	4.60	0.49	the highest level
Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.	4.50	0.50	the highest level
Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depressed patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of	4.86	0.35	the highest level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
depression in the elderly.			
Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs to alleviate the symptoms of Elderly depression by taking the age group as the differentiating factor.	4.43	0.49	high level
Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression			
Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for	4.70	0.46	the highest level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
elderly depression			
Sub-strategy (ST5.1) 5.1 Instruct elderly depressed patients on the number of times they should engage in Recreational sports in each week.	4.79	0.41	the highest level
Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.	4.79	0.41	the highest level
Sub-strategy (ST5.3) 5.3 Number of days per treatment session in which older patients with depression are instructed to engage in recreational physical activity.	4.79	0.41	the highest level
Sub-Strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.	4.43	0.49	high level

Table 13 Strategy Feasibility Assessment Quantitative

NO.	Content	Total	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
1	vision	64	4.57	0.49	the highest level
2	Mission	60	4.29	0.45	high level
3	Strategy	61	4.36	0.48	high level
4	Strategy 1		4.32	0.47	high level
5	Sub-strategy (SO1.1) 1.1	59	4.21	0.41	high level
6	Sub-strategy (WO1.2) 1.2	62	4.43	0.49	high level
7	Strategy 2		4.43	0.49	high level)
8	Sub-	61	4.36	0.48	high level



NO.	Content	Total	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
	Strategy(WO2.1) 2.1				
9	Sub-strategy (WT2.1) 2.2	57	4.07	0.26	high level
10	Sub-strategy (SO2.1) 2.3	67	4.79	0.41	the highest level
11	Sub-strategy (ST2.1) 2.4	60	4.29	0.45	high level
12	Sub-strategy (SO2.2) 2.5	66	4.71	0.45	the highest level
13	Sub-Strategy (WO2.2) 2.6	61	4.36	0.48	high level
14	Strategy 3		4.36	0.48	high level
15	Sub-Strategy (SO3.1) 3.1	60	4.29	0.45	high level
16	Sub-strategy (WT3.1) 3.2	64	4.57	0.49	the highest level
17	Sub-strategy (WO3.1) 3.3	59	4.21	0.41	high level
18	Strategy 4		4.60	0.49	the highest level
19	Sub-strategy (WO4.1) 4.1	63	4.50	0.50	the highest level
20	Sub-strategy (ST4.1) 4.2	68	4.86	0.35	the highest level
21	Sub-strategy (ST4.2) 4.3	62	4.43	0.49	high level
22	Strategy 5		4.70	0.46	the highest level
23	Sub-strategy (ST5.1) 5.1	67	4.79	0.41	the highest level

NO.	Content	Total	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
24	Sub-strategy (ST5.2) 5.2	67	4.79	0.41	the highest level
25	Sub-strategy (ST5.3) 5.3	67	4.79	0.41	the highest level
26	Sub-strategy (ST5.4) 5.4	62	4.43	0.49	high level
27	general strategy	1317	4.48	0.50	high level

Summary:

1. This study is about Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. The research objectives are three parts: Step 1: To study the theory of recreational sports and the current situation of depression symptoms of elderly in Guangdong. Step 2: To develop and validate a draft plan for Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. Step 3: Evaluate the feasibility of the draft plan of the strategy. In order to better achieve the research objectives, both qualitative and quantitative methods were employed, and the strategies were studied from multiple perspectives using questionnaires, expert interview questionnaires, and expert workshops, and the feasibility of the strategies was finally assessed to be very high, so that the implementation of the strategies could bring benefits to alleviate the symptoms of depression in elderly people with depression in Guangdong.

2. Strategies with 5 components:

- (1) Financial Subsidies
- (2) Recreational Sports Venues
- (3) Recreational Sports Instructors
- (4) Recreational Sports Programs
- (5) Recreational Sport Time

3. Feasibilities of Strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”.

The overall mean of the strategy is 4.48 with a standard deviation of 0.50, which indicates that the strategy is very feasible, and the breakdown of the individual strategy parts is in the range of 3.50 - 5.00, which indicates that the feasibility of the individual strategy parts is in the large and maximal range, and so the strategy as a whole is feasible.

The highest feasibilities:

SO:SO2.1: Sub-strategy (SO2.1) 2.3: Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

ST:ST4.1: Sub-strategy (ST4.1) 4.2: Using male and female gender as the differentiating factors, according to the preference level of the elderly depressed patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

WO: WO4.1: Sub-strategy (WO4.1) 4.1: Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.

WT: WT3.1: Sub-strategy (WT3.1) 3.2: Assign Specialist instructors to guide elderly depressed patients in Recreational sports.



Chapter 5

Conclusion, Discussion, and Recommendation

This study is about the development of recreational sports strategies for the depression problems of elderly in Guangdong. It has the following objective of research are 3 sections:

Step 1: To study the theory of recreational sports and the current situation of depression symptoms among older adults in Guangdong.

Step 2: To develop and validate a draft program of Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong.

Step 3: To evaluate the feasibility of the draft strategy.

5.1 Conclusion

5.1.1 The theory and the current situation

The theory of recreational sports and the current situation of depression symptoms among elderly depression in Guangdong.

Elderly depression is a mental disorder that first develops after the age of 60 and is characterized by persistent depressive states of mind as the main clinical manifestation. Depression is a negative, unpleasant emotional experience, characterized by low affect, crying, sadness, disappointment, reduced activity, and delayed thinking and cognitive function. It generally has a long course, with a tendency to remission and relapse, and some patients have a poor prognosis and

can develop refractory depression, therefore, Elderly depression has a serious impact on the physical and mental health of the elderly. In order to better study this theory, the questionnaire “Demand for Participation in Recreational Sports to Treat Depressive Symptoms among Elderly Depressed Patients in the Guangdong Community”, and analyzed the indicators after collecting the questionnaire:

1. The analysis of the results of the statistical characteristics of the basic situation of the interviewed group shows that there are equal numbers of male and female people. All of them are Han Chinese. In terms of literacy, the level of education is relatively low. There are more cases of having three or more children. The type of work of the respondents is higher in the proportion of civil servants, farmers and self-employed. The financial resources are mainly dependent on pensions. A larger group of respondents rely on national health insurance to pay for medical expenses. Most of them own their own houses. Therefore, from the analysis results, it can be seen that the target audience selected by the questionnaire is more representative and comprehensive.

2. The physical condition of the interviewed group, the survey results show that the group generally feels troubled by their own health, nutrition and sleep problems.

3. The symptoms of depression in the interviewed group, it indicates that the symptoms of depression in this group are quite common and serious, but the treatment method is relatively single.

4. The analysis of the respondents' knowledge of recreational sports, their role in treating depression in the elderly, and the contents and programs of recreational sports, nearly half of the respondents have only “general knowledge”, indicating that the awareness of recreational sports in this group is low.

5. The daily recreational time of the interviewed group, it reflects that this group has a certain amount of recreational time in their daily life, and they are willing to participate in recreational sports, of which the morning is the most popular time period.

6. The analysis of the contents of the recreational sports programs of the interviewed groups, it can be seen that 100.00% of the people chose recreational sports

because “the movements are simple and easy to learn”, and according to the selection of effective recreational sports for the treatment of geriatric depression by elderly patients, chorus, indoor fitness, and other recreational sports are the most popular ones.

According to the selection of effective recreational sports for treating geriatric depression by elderly patients, the participation rates of chorus, indoor fitness and qigong all reached 100%, which are not only popular but also have high feasibility and adaptability.

7. The largest number of respondents suggested 3-4 days of exercise per week. In terms of exercise duration, the most recommendations were 1-2 hours of exercise.

In terms of the aspects that respondents thought needed to be improved on the strategy when formulating the strategy, the demand for improvement of exercise programs and the need for government funding subsidies stood out the most, suggesting that the current exercise programs may not be able to fully meet the needs of the elderly population, and that there is a problem of insufficiently rich or adaptable program settings. In terms of exercise programs for geriatric depression, interaction between patients was the element that respondents were most concerned about.

When developing strategies, in terms of the requirements for government funding subsidies, the interviewees hoped that the government would adjust the allocation of funds according to the actual needs and circumstances, so as to better cope with the changes and special needs of different programs.

In developing strategies, respondents are more concerned about whether sports venues can meet the requirements of the area needed for the venues of their preferred recreational sports.

In developing strategies, respondents felt that instructors needed to have the ability to adjust patients' emotions.

5.1.2 To develop Strategies

To develop Strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”, the following steps were done in this study:

5.1.2.1 Questionnaire 84people and IOC list of experts-3 people.

5.1.2.2 Interview for making strategy (11people).

5.1.2.3 SWOT from Questionnaire and interview.

Analysis based on the data, it was determined that “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” can be divided into five components:

- (1) Financial subsidies
- (2) Recreational Sports Venues
- (3) Recreational Sports Instructors
- (4) Recreational Sports Programs
- (5) Recreational time

5.1.2.4 TOWS Analysis

A draft of the strategy was developed through the TOWS analysis methodology. Draft before Connoisseurship:

Strategy 1: Establish a subsidy method that combines multiple sources of funding by multiple payers.

Sub-strategy (SO1.1) 1.1 Establish a funding subsidy system that consists of multiple government departments working together.

Sub-strategy (WO1.1) 1.2 Fund-raising approach by various social organizations to assist in raising funds for Recreational and sports activities for the elderly with depression.

Sub-strategy (WT1.1) 1.3 Charge an activity fee for each elderly patient who engages in recreational sports.

Strategy 2: Do a good job of maintaining, renovating, upgrading, and

constructing Recreational and sports venues.

Sub-Strategy (WO2.1) 2.1 Appropriate renovation of existing parks and civic activity squares.

Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.

Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.

Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression

Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression

Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to instruct elderly depressed patients in Recreational sports.

Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors specializing in recreational sports for elderly depressed patients.

Strategy 4: Promote the heritage and innovation of recreational sports programs.

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted and with national characteristics.

Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating

factors, according to the preference level of the elderly depression patient group for different

Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs with age group as the differentiating factor in order to alleviate the symptoms of Elderly depression.

Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression

Sub-strategy (ST5.1) 5.1 Instruct older patients with depression on the number of times they should engage in recreational sports during each week.

Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

Sub-strategy (ST5.3) 5.3 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

5.1.2.5 Consideration recommendations and suggestions from Connoisseurship 9 People.

1. Delete: Sub-strategy (WT1.1) 1.3 Charge an activity fee for each elderly patient who engages in recreational sports.

2. Add:

1) Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.

2) Sub-Strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

The details are as follows:

Sub-strategy (SO1.1) 1.1 Establish a funding subsidy system that consists of multiple government departments working together.

-Edit:

Content:

3. Administrative units at the grass-roots level set aside funds for Recreational and sports activities for elderly persons with depression from the funds for activities for the elderly.

- Edit:

Indicators:

3. Specific reference can be made to the previous year's requested funding for each applicant.

4. The administrative unit at the grass-roots level reviews and pays for each activity request.

5. Funds should be placed on time, in full and with flexibility and variability.)

Sub-strategy (WO1.1) 1.2 Fund-raising approach by various social organizations to assist in raising funds for Recreational and sports activities for the elderly with depression.

(Edit:

Content:

4. The elderly sports associations to apply for and pay for relevant Recreational sports for elderly patients with depression.

Indicators:

4. The title and cooperative enterprises must provide legal business license to prevent the bad influence from unqualified products or enterprises.

5. The Elderly Sports Association will pay the required funds as needed after receiving and reviewing the application for activity funding.)

Sub-strategy (WT1.1) 1.3 Charge an activity fee for each elderly patient who engages in recreational sports.

(Should be deleted.)

Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

-Edit:

Content:

2. The siting of sports venues should meet the requirement of convenient transportation.

3. The site of the exercise place should be chosen in a place where the terrain is safe.

Indicators:

1. The design of activity places should be radiated outward from the radius of the residence of the elderly, and should also be easily accessible.

2. The location of the exercise place should be in accordance with the building safety standards.)

Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.

(Add Sub-Strategy (WO2.2) 2.6)

Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors specializing in recreational sports for elderly depressed patients.

(Edit:

Content:

4. The criteria for appointment may be based on professionalism and patience as the main requirements.

5. The appointed mentor must give sufficient time to the elderly patients with depression for guidance.

6. The appointed instructor should fulfill the requirement of being able to adjust the mood of the elderly patients.

Indicators:

3. A work score sheet should be set up for each Recreational sports instructor, and the elderly patients with depression who participate in Recreational sports should be rated by the patients themselves or by the management staff after each activity.

4. The scores include: whether the sports instructor of the recreational sports is qualified for the job and whether the instruction is Specialist.)

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted and with national characteristics.

(Edit:

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.

Content:

1. Focus on popularizing Recreational sports and exercise programs that are popular among elderly people with depression. Take walking and square dancing as preferred.

2. Targeted selection of Recreational sports programs with therapeutic effects. Qigong and sword dancing are preferred.

3. Select Recreational sports with national traditional characteristics. Taiji and Baduanjin are preferred.

4. Introducing new popular or current medically proven recreational sports that reduce the symptoms of depression in elderly depression. Goalball, frisbee games, table games are preferred.

Indicators:

3. The sports program should be characterized by diversity, fun and innovation.

4. The sport program should contribute to the interactivity between patients.)

Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depression patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

(Edit:

Content:

1. The degree of preference of Recreational sports for men is dominated by limb aerobic activities, vocal music and qigong. Walking, jogging, table tennis, Chinese calligraphy,

and chess playing were preferred.

2. The degree of preference for recreational sports for women is dominated by dance, vocal music, and qigong. Square dancing, chorus, and making handicrafts are preferred.)

Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs with age group as the differentiating factor in order to alleviate the symptoms of Elderly depression.

(Edit:

Content:

1. The age group of 60-64 years old elderly depression patients can choose the aerobic activities of the limbs with stronger activity and dance category mainly. Walking, jogging, table tennis and square dancing are preferred.

2. Elderly patients with depression in the age group of 65 to 69 years old can choose moderate activity volume of limb coordination activities. Gymnastics, sword practice, and indoor fitness are preferred.

3. Elderly patients with depression in the age group of 70 to 74 years old can choose rhythmic activities with less activity. Tai Chi, qigong, and senior yoga are preferred.

4. Elderly patients with depression in the age group of 75 to 79 years old can choose sedentary activities with the least amount of activity. Chinese calligraphy, playing chess, making handicrafts, chorus and playing musical instruments are preferred.)

Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

(Edit:

-Content:

1. The daily Recreational sports time should be 2 hours for 60-64 years old, 2 hours for 65-69 years old, 1-2 hours for 70-74 years old, and 1 hour for 75-79 years old.)

Sub-strategy (ST5.3) 5.3 Number of days per treatment session in which older patients with depression are instructed to engage in recreational physical activity.

(Add sub-Strategy 5.4)

Strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

(Sub-strategy (ST5.3) 5.3 change to sub-Strategy 5.4)

5.1.2.6 The develop strategies after Connoisseurship 9 People.

Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.

Sub-strategy (SO1.1) 1.1 Establish a system of subsidizing funds by multiple government departments working together.

Sub-strategy (WO1.1) 1.2 Fund-raising by various social organizations to assist in raising funds for recreational and sports activities for the elderly with depression.

Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.

Sub-Strategy (WO2.1) 2.1 Appropriately renovate existing parks and civic activity plazas.

Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.

Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.

Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.

Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression

Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression.

Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to guide elderly depressed patients in Recreational sports.

Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors who specialize in recreational sports for elderly depressed patients.

Strategy 4: Promote the heritage and innovation of recreational sports programs.

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.

Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depressed patient group for

different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs to alleviate the symptoms of Elderly depression by taking the age group as the differentiating factor.

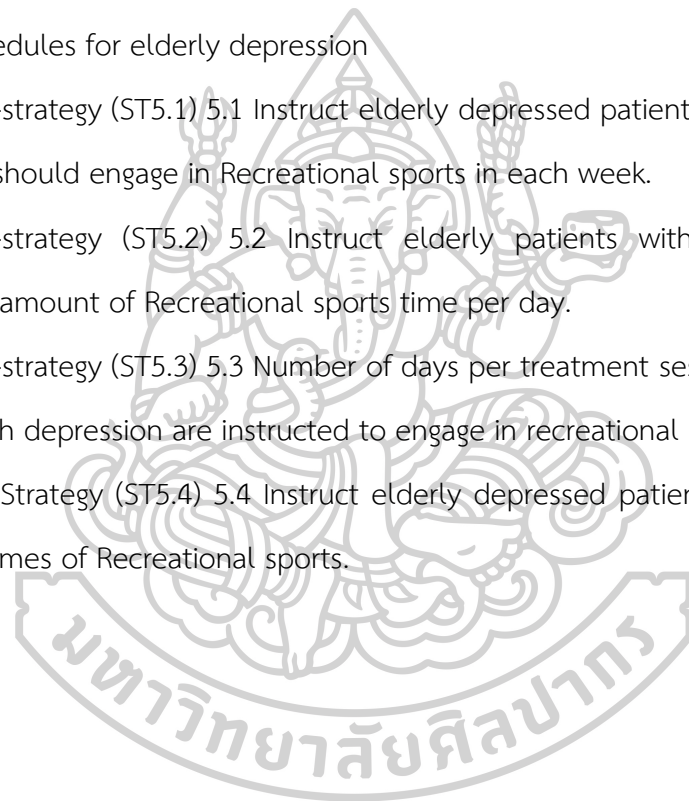
Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression

Sub-strategy (ST5.1) 5.1 Instruct elderly depressed patients on the number of times they should engage in Recreational sports in each week.

Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

Sub-strategy (ST5.3) 5.3 Number of days per treatment session in which older patients with depression are instructed to engage in recreational physical activity.

Sub-Strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.



5.1.2.7 Interview for feasibility strategy(12people).

1) Sub-strategy (SO1.1) 1.1 Establish a system of subsidizing funds by multiple government departments working together.

It is disagreed. (Stakeholder (7))

2) Sub-strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.

It is disagreed. (Stakeholder (4)) It is not sure. (Stakeholder (10))

3) Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression.

It is not sure. (Stakeholder (8))

4) Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to guide elderly depressed patients in Recreational sports.

It is not sure. (Stakeholder (4))

5) Sub-strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

It is not sure. Stakeholder (2)

It is disagreed. Stakeholder (12)

The rest of the strategies were unanimously confirmed by 12 people.

5.1.2.8 Evaluate the feasibility by questionnaire 14 people. To evaluate the feasibility of the draft strategy.

Summary: The overall mean of the strategy is 4.48 with a standard deviation of 0.50, which indicates that the strategy is very feasible, and the breakdown of the individual strategy parts is in the range of 3.50 - 5.00, which indicates that the feasibility of the individual strategy parts is in the large and maximal range, and so the strategy is feasible.

5.1.2.9 Developed and validated a draft plan

Developed and validated a draft plan for Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. The drafted, revised and validated strategies are as follows:

Vision:

To improve the symptoms of depression in the elderly with scientific recreational sports strategies, which improve the physical and mental health, quality of life, and other aspects of the elderly, and also enhance their sense of well-being in life.

Mission:

1. To establish a financial subsidy system based on multi-sectoral cooperation by the government, and to raise funds from various social groups as an auxiliary way of financial security.

2. To do a good job of maintaining, renovating, upgrading and building Recreational and sports venues, so as to make a good foundation of venues for reducing the symptoms of elderly patients with depression.

3. To cultivate, allocate and appoint sports instructors who specialize in Recreational sports for elderly patients with depression in a long-term and targeted manner, so as to achieve the purpose of improving the symptoms of depression in elderly patients with depression in a more scientific and targeted manner.

4. Do a good job in the inheritance and innovation of Recreational sports programs, both in line with the needs of the elderly patients with depression in their own physical conditions, but also to make them physically and mentally pleasurable sports activity programs.

5. Scientifically and reasonably arrange the Recreational sports time for the elderly patients with depression in order to achieve the purpose of improving the symptoms. Strategy: “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”.

Components of the strategy:

Strategy 1: Financial Subsidies Strategy 2: Recreational Sports Venues

Strategy 3: Recreational Sports Instructors Strategy 4: Recreational Sports

Programs Strategy 5: Recreational Sport Time

Specifics of the strategy:

Strategic: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong

Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.

Sub-strategy (SO1.1) 1.1 Establish a system of subsidizing funds by multiple government departments working together.

Sub-strategy (WO1.1) 1.2 Fund-raising by various social organizations to assist in raising funds for recreational and sports activities for the elderly with depression.

Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.

Sub-Strategy (WO2.1) 2.1 Appropriately renovate existing parks and civic activity plazas.

Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.

Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.

Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.

Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression

Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression

Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to guide elderly depressed patients in Recreational sports.

Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors who specialize in recreational sports for elderly depressed patients.

Strategy 4: Promote the heritage and innovation of recreational sports programs.

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.

Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depressed patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs to alleviate the symptoms of Elderly depression by

taking the age group as the differentiating factor.

Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression

Sub-strategy (ST5.1) 5.1 Instruct elderly depressed patients on the number of times they should engage in Recreational sports in each week.

Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

Sub-strategy (ST5.3) 5.3 Number of days per treatment session in which older patients with depression are instructed to engage in recreational physical activity.

Sub-Strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

5.1.3 Evaluate the feasibility of the draft strategy.

Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong Draft Feasibility Assessment Form Instructions:

(1) The overall mean score for the Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong draft was 4.48, with a standard deviation of 0.5, and the overall feasibility level of the strategy was High Level (High Level: 3.50 - 4.49), indicating that the feasibility of the strategy is high.

(2) Where: vision, Strategy 4, Strategy 5, Sub-strategy

(SO2.1) 2.3, Sub-strategy (SO2.2) 2.5, Sub-strategy (WT3.1) 3.2, Sub-strategy (WO4.1) 4.1, Sub-strategy (ST4.1) 4.2, Sub-strategy (ST5.1) 5.1, Sub-strategy (ST5.2) 5.2, Sub-strategy (ST5.3) 5.3, the feasibility of the strategy is at The Highest Level (The

Highest Level: 4.50 - 5.00), which suggests the feasibility of the strategy's part of the feasibility is at the maximum.

(3) Where: mission, strategy overall, Strategy 1, Strategy 2, Strategy 3, Sub-

strategy (SO1.1) 1.1, Sub-strategy (WO1.2) 1.2, Sub-Strategy 2.1, Sub-strategy

(WT2.1) 2.2, Sub-strategy (ST2.1) 2.4, Sub-Strategy (WO2.2) 2.6, Sub-Strategy

(SO3.1) 3.1, Sub-strategy (WO3.1) 3.3, Sub-strategy (ST4.2) 4.3, sub-Strategy 5.4 has

strategy feasibility level of High Level (High Level: 3.50 - 4.49) indicating that the feasibility of this strategy component is high.

(4) The average score of Strategy 5 is the highest score among the five strategies, indicating that Strategy 5 has the most feasibility among the entire strategies.



5.1.4 The most feasibilities strategy

The most feasibilities strategy “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” as follows:

SO: The average score of Sub-strategy (SO2.1) 2.3 is the highest score among the entire strategies (SO): Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

ST: The average score of Sub-strategy (ST4.1) 4.2 is the highest score among the entire strategies (ST): Using male and female gender as the differentiating factors, according to the preference level of the elderly depressed patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of depression in the elderly.

WO: The average score of Sub-strategy (WO4.1) 4.1 is the highest score among the entire strategies (WO): Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.

WT: The average score of Sub-strategy (WT3.1) 3.2 is the highest score among the entire strategies (WT): Assign Specialist instructors to guide elderly depressed patients in Recreational sports.

5.2 Discussion

5.2.1 The discussion of the theory and the current situation

After a series of related investigations and studies, Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong has been nearly completed and also proved to be highly feasible through the evaluation of the feasibility of the strategies. In this study, the discussion of the findings is carried out from the following aspects:

Step 1: To study the theory of recreational sports and the current situation of symptoms of depression in the elderly in Guangdong.

Depression in the Elderly is the most common mental disorder disease in the elderly, with depressed mood or lack of interest or pleasure as the main manifestation, which may be accompanied by different degrees of cognitive and behavioral changes. Therefore, depression in the elderly is a disease that jeopardizes the health and quality of life of the majority of older people. This viewpoint is illustrated in detail in Ministry of Civil Affairs of China, "2022 National Development Communique on Aging", (Ministry of Civil Affairs of China, 2022) which explains the dangers of depression in detail: (1) It is a disease that is harmful to the health and quality of life of the elderly:

(2) It is a disease that is harmful to the health and quality of life of the elderly. (1) It will not only bring mental pain to elderly patients, but also physical pain. (3) It will cause low immunity in elderly patients. (4) It aggravates or induces heart disease. (5) It leads to suicide.

Among the many treatments for depression in the elderly, recreational sports are a customized remedy for depression in the elderly. This is similar to the claim of Liu Weiwei (2022), "Exercise Therapy for Depression". (Liu Weiwei, 2022) The authors state the most important treatment modalities for depression in the

elderly include medication, psychotherapy, and physiotherapy. However, the limitations of the treatment modalities have led to poor treatment adherence. Exercise therapy, as a treatment recommended in several guidelines, has become a hot topic in the treatment of depression in older adults because of its advantages of high compliance, high operability, and few side effects.

In order to understand the current situation of depression symptoms among the elderly in Guangdong, a questionnaire “Demand for Participation in Recreational Sports to Treat Depressive Symptoms among Elderly Depressed Patients in the Guangdong Community”, and the indicators were analyzed after the questionnaires were returned:

(1) The analysis of the basic information of the groups interviewed shows that there may be a correlation between increasing age and the severity of depressive symptoms, with the severity of depressive symptoms increasing with increasing age. In terms of the type of work, the farmer group may face more risk of depression. In terms of the nature of the housing in which they live, there is a higher risk of depression among those who live in institutions. The main sources of depression include economic reasons, and psychological stress in older age groups is related to living conditions. This finding is similar to Hou Yongmei and Mai Jingwen (2020), “The Current Situation of Depression in the Elderly and Its Influencing Factors - A Case Study of Guangdong Province”, (Hou Yongmei and Mai Jingwen, 2020) in which it was concluded that: the occurrence of depressive symptoms as well as their severity in the elderly is influenced by a combination of factors, and that demographic characteristics such as place of residence, gender, and age influence the degree of depression in the elderly Physical health and economic factors are the main factors affecting the level of depression among older people, rural older people are affected by economic income and health status, and the incidence and severity of depressive symptoms are high, while the factors affecting the level of depressive

symptoms among urban older people are more complex. Social support, one's economic status and life adaptability may be the influencing factors of depression in the elderly. Therefore, the development strategy of Recreational sports should be scientifically designed according to these influencing factors of depression among the elderly.

(2) Elderly people's evaluation of their health status, nutritional status and sleep status showed a strong negative correlation with depressive symptoms, and a decline in sleep quality may directly lead to more severe depressive symptoms, while poor health and nutrition are also closely related to depressive mood. This relationship is similar to the Fan Yang's study, "Influence of Physical Exercise on Depression of Chinese Elderly", (Yang Fan et al., 2023) which showed that physical health status has a significant impact on the development of depressive symptoms in older adults. Overall, older adults with poor physical health are more likely to develop depressive symptoms. In particular, self-assessed health status, as the subjective feeling of older adults about their own health, has a significant effect on the occurrence of depressive symptoms in older adults.

(3) 77.38 per cent of the respondents reported moderate symptoms of depression, which indicates that symptoms of depression are quite common and more severe in this group. In order to cope with depressive symptoms, 67.86% of them chose to take medication methods, while fewer of them actively chose Recreational sports. This finding is consistent with the findings of the research team, Institute of Psychology, Chinese Academy of Sciences, "China National Mental Health Development Report (2021-2022)". (Chinese Academy of Sciences, 2022) The content of the research report is in line with the report, which mentions that: the treatment modalities for Elderly depression include medication, psychotherapy, physiotherapy and physical exercise therapy. However, due to the influence of economy, social support ability, life pressure, and the reason of simplicity and

convenience, taking medication becomes the main treatment method, and physical exercise becomes the option for fewer patients.

(4) When analyze in terms of knowledge of the content and program of recreational sports and their role in the treatment of depression in the elderly, a low percentage of those who really had an in-depth knowledge of exercise therapy. At the same time, older adults' knowledge of the content and programs of recreational sports was likewise significantly negatively correlated with depressive symptoms. Knowledge and understanding of recreational sports in elderly depressed patients play a positive role in reducing depressive symptoms. The therapeutic effects of different types of recreational sports on depression in older adults varied significantly. The top-ranked sports such as square dancing, jogging, and qigong had higher mean scores, indicating that they had more significant improvement effects on Elderly depression. Most of these exercises are characterized by low intensity, sustainability and social interaction, which help to promote physical health and psychological relief among the elderly. In particular, square dancing and qigong also involve the interaction of a larger group of people, which increases the sense of social participation and emotional support. In contrast, lower-ranked activities such as playing chess and making handicrafts scored relatively low. While these activities can help older adults maintain their mental activity and hands-on skills, they may not be as effective in alleviating depression as the more physically active program due to their less social interaction and less intense physical activity. Overall, activities with high social interaction and moderate physical activity, such as square dancing, jogging and qigong, are better able to help older adults alleviate depression. According to the selection of effective Recreational sports for treating depression in the elderly, chorus, indoor fitness and qigong, and square dance are not only popular, but also have high feasibility and adaptability. Chorus and square dance provide emotional support and social interaction for elderly patients, which can

enhance the sense of belonging of the elderly, thus effectively alleviating loneliness and depressive symptoms. Exercises such as qigong and taijiquan, on the other hand, combine physical and mental coordination to enhance self-regulation, thereby reducing mood swings. This view is similar to Ma Master's University Canada Optimizing Ageing Information Theme Group, "Research Targeting Exercise and Depression Treatment". (Optimizing Ageing Information Theme Group, 2016) The study concludes that Tai Chi and Qigong are particularly effective, possibly because they are both exercises that control emotions through soothing, incorporate meditation, breathing and relaxation techniques, and emphasize the unity of the body and mind, which is more in line with Elderly depression treatment physiological principles. This criterion can also be taken into account for other selected exercise program.

(5) The main reasons for the interviewed elderly patients to participate in recreational sports were that the movements were simple and easy to learn, while reasons such as affordability, following friends' choices and proximity to sports venues were similar in proportion for the elderly patients. This is similar to the study by Peilin Li, "Survey Report on the Current Situation of Physical Fitness for the Elderly in China". (Li Peilin, 2023) The report points out that there are several main influences on older adults' ability to keep their exercise behaviors sustained when engaging in physical activity, including the simplicity and ease of learning the exercise program, the reasonableness of the exercise expenditures, the peer support and cohesion, and the convenience of exercising near. The fact that elderly patients can perform Recreational sports with simple and easy-to-learn movements will keep them excited about exercising, the reasonableness of the exercise expenditure will not increase the economic pressure of the elderly, the enhancement of peer support for the elderly is the strengthening of social support for the elderly patients, and the convenience of exercising close to home ensures the safety and

convenience of travelling for the elderly patients. All of these aspects can increase the enthusiasm for exercise in elderly patients with depression, thereby reducing the likelihood of the frequency and symptoms of depression in the elderly.

(6) Participants' demand for government funding subsidies (86.91%) was the most prominent, with older people expecting more government subsidies to reduce the cost of participating in recreational sports and enhance the sustainability of the sport. This survey proportion is more in line with the statement in Ministry of Civil Affairs of China, “2022 National Development Communique on Aging”, (Ministry of Civil Affairs of China, 2022) stating that in the year 2022, the Our economy has been affected by COVID-19, and the funds allocated for physical exercise in old age have been tightened. In order to better develop the cause of aging and improve the welfare of the nation's elderly, a subsidy method led by the government and supported by various civil organizations, groups and enterprises from multiple sources of funding is being established to ensure funding for recreational and sports activities for the elderly with depression.

(7) 55.95% of the participants had requirements for sports venues, indicating that the convenience and availability of sports facilities are also important factors in increasing sports participation. This viewpoint is similar to that of Shanggui Liao and Liqiang Qiu, (2022), “The Current Situation of Community Sports and Recreational Functions for the Elderly and Countermeasures”, (Liao Shanggui and Qiu Liqiang, 2022) which reported that: in the current new situation, we should gradually establish a public Recreational and sports service system for the elderly, and provide the elderly with higher and better Recreational and sports supporting services, in which the sports ground is the material foundation and guarantee for elderly depressed patients to engage in Recreational and sports, and different from other sports participants, elderly depressed patients have different views on sports.

The difference between other sports participants is that the elderly depressed patients have their unique requirements for sports venues.

(8) 77.38% of the participants had higher requirements for instructors, reflecting that Specialist sports instruction plays an important role in promoting recreational sports for the elderly. This is consistent with Shanggui Liao and Liqiang Qiu, "The Current Situation of Community Sports and Recreational Functions for the Elderly and Countermeasures", (Liao Shanggui and Qiu Liqiang, 2022) which suggests that, in terms of developing strategies to improve the symptoms of depression among the elderly, there can be a pool of instructors who can guide the elderly to participate in sports activities through specialized training at universities and increased knowledge of related sports, and that the appointment and distribution of instructors should be carried out by means of a multi-party approach and a flexible payment of salaries. The appointment and distribution of instructors is done in a multi-party and flexible salary payment method. These methods encourage more instructors to take up the role of "leader" in Recreational sports for elderly people with depression.

(9) Participants' requests for improvement of sports program (83.33%) indicate that the current sports program may not be able to fully meet the needs of the elderly group, and that there are problems of insufficiently rich or adaptable program settings. Older people want to try new forms of exercise to keep things fresh, which can further increase the participation rate. This is similar to Ma Kanrong, "Recommendations on Strengthening the Development of Sports for the Elderly (2016)". (Ma Kanrong, 2016)

The recommendation suggests that 1. Therapeutic effectiveness should be the primary criterion for consideration in the setting of sports program, as this is for the treatment of elderly patients with depression. 2. In order to meet the Recreational sports needs of the majority of older people, traditional, interesting, easy-to-learn, and socially- enhancing sports should be the main criteria for consideration in the setting of sports programs.

(10) Increasing the amount of time spent on Recreational activities can help alleviate depression in older persons. Through more Recreational time, older people can have the opportunity to engage in social and physical activities, which can help to enhance their sense of well-being and quality of life. In formulating strategies regarding time, most of the interviewees suggested moderate frequency and duration of exercise, with 1-2 hours of exercise per day being optimal. In the distribution of time slots for older people's participation in Recreational sports and physical activities, morning is the most popular time slot, and most older people preferred to engage in physical activities in the morning, when the temperature is favorable, the air quality is better, and older people are more energetic. Meanwhile, also made scientific requirements for the Recreational physical activity time for each session, each week, and each day, believing that moderate exercise can alleviate depression while avoiding excessive fatigue. This view is similar to the brain correlation between exercise time and depression in the elderly in Weiwei Liu, "Exercise Therapy for Depression". (Liu Weiwei, 2022) The authors pointed out that when Elderly depression patients are performing sports, they should choose to start at the right time and scientifically perform it for a certain period of time (generally including each session time, every week, every day, etc.) before the regulating effect of sports can physiologically bridge the communication between brain tissues, peripheral tissues, and the central nervous system, and only then can dopamine

and endorphins be produced, which play an important role in controlling the process of depression. play an important role.

(11) Elderly depressed patients perceived the time of recreational sports, the requirements of sports venues, instructors, sports program, and financial subsidies as having a significant impact on the reduction of depressive symptoms. This strategic thinking is similar to Yang Fan's study, "Influence of Physical Exercise on Depression of Chinese Elderly", (Yang Fan et al., 2023) in which he argued that in order to better develop the role of physical activity in the implementation of the active ageing strategy, it is necessary to further popularize sports and health knowledge among older people, especially those in rural areas, to design and develop sports and exercise program suitable for older people, to provide older people with venues, equipment and instructional services, and to guide older people to actively participate in physical activity and stimulate their motivation to exercise. It is also necessary to further popularize sports and health knowledge among older persons, especially those in rural areas, design and develop sports and exercise programs suitable for older persons, provide them with venues, equipment and guidance services, and guide them to actively participate in sports and exercise, so as to motivate them to do so and improve their physical and mental health.

5.2.2 The discussion to evaluate the feasibility of the draft strategy

Step 2: Develop and validate a draft plan for Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. The strategies that have been drafted, revised and validated are listed below:

Strategic: "Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong"

Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.

Sub-strategy (SO1.1) 1.1 Establish a system of subsidizing funds by multiple government departments working together.

Sub-strategy (WO1.1) 1.2 Fund-raising by various social organizations to assist in raising funds for recreational and sports activities for the elderly with depression.

Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.

Sub-Strategy (WO2.1) 2.1 Appropriately renovate existing parks and civic activity plazas.

Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.

Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.

Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.

Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.

Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.

Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for elderly depression

Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for elderly depression

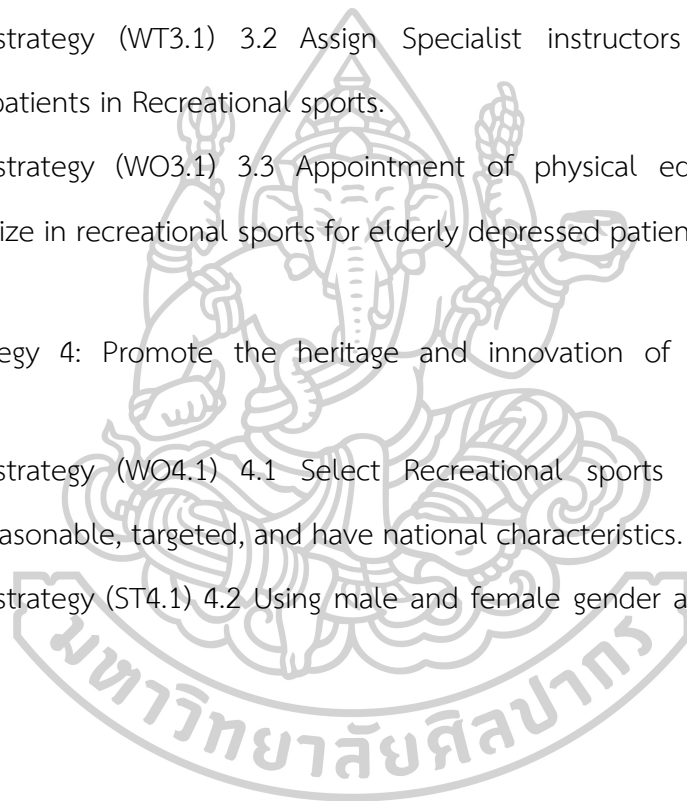
Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to guide elderly depressed patients in Recreational sports.

Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors who specialize in recreational sports for elderly depressed patients.

Strategy 4: Promote the heritage and innovation of recreational sports programs.

Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.

Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors,



according to the preference level of the elderly depressed patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.

Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs to alleviate the symptoms of Elderly depression by taking the age group as the differentiating factor.

Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for elderly depression

Sub-strategy (ST5.1) 5.1 Instruct elderly depressed patients on the number of times they should engage in Recreational sports in each week.

Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.

Sub-strategy (ST5.3) 5.3 Number of days per treatment session in which older patients with depression are instructed to engage in recreational physical activity.

Sub-Strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.

The content of this strategy is in line with General Administration of Sport , “Circular of the General Administration of Sport on Further Improving the Work of Sports for the Elderly”, (General Administration of Sport,2022) the document calls for a deep understanding of the significance of the work of the elderly in the new era, and further enhancement of the quality and level of the work of sports for the elderly, including the need to do a good job in taking care of the sick elderly, earnestly implement the relevant standards and norms, and actively create the conditions for the elderly to fitness to provide more venues and facilities, enriching the elderly sports events and activities, and promoting fitness and recreational

sports suitable for the elderly, perfecting the sports organizations for the elderly, strengthening scientific fitness research and guidance, and comprehensively promoting the work of sports for the elderly and improving the relevant institutional mechanisms to create an atmosphere of sports and fitness for the elderly. Strengthening scientific fitness research and guidance for the elderly, coordinating the promotion of sports for the elderly, improving the relevant institutional mechanisms, and creating an atmosphere of sports and fitness for the elderly.

At the same time, this strategy is also similar to the views of Ma Kanrong, “Suggestions on Strengthening the Development of Sports for the Elderly (2016)”, (Ma Kanrong, 2016) in terms of the development strategy to improve the symptoms of depression in the elderly, the following suggestions are put forward:

1. Emphasis on recreational sports and physical activities for elderly people with depression, the community centers to edit books on scientific fitness and wellness and to carry out activities such as the publicity of knowledge on scientific fitness and counselling and demonstration of such activities.
2. Effectively strengthen the Recreational sports and fitness guidance for the elderly with depression, and vigorously cultivate specialized social sports instructors and sports volunteers for the elderly to guide them to participate in sports activities.

3. Actively improve the conditions of sports and fitness activities for the elderly, and coordinate the arrangement of sports and fitness venues and facilities for the elderly in conjunction with the characteristics of sports and fitness for the elderly. In accordance with the actual situation, when building squares and residential neighborhoods, facilities and equipment suitable for the physical fitness activities of the elderly should be reasonably allocated, so as to make it convenient for elderly patients to take part in physical exercise in their localities and neighborhoods. For example, priority can be given to the construction of sports venues and facilities for the elderly that are suitable for the activities of the elderly, so as to meet the need for elderly patients to be able to participate in sports and fitness activities close to their homes and at their own convenience.

4. Provide multiform contents of sports activities for the elderly.

5.2.3 The discussion to evaluate the feasibility of the draft strategy Step 3: Evaluate the feasibility of the draft strategy.

After drafting the Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong, the strategies were validated, revised, and finalized, and the final total strategy consisted of 5 main strategies and 18 sub-strategies:

Strategies: "Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong"

Strategy 1: Establish a subsidy approach that combines multiple sources of funding by multiple payers.

Strategy 2: Maintain, renovate, upgrade, and construct recreational sports fields. Strategy 3: Train, assign, and employ physical education instructors who specialize in recreational sports for depressed older adults.

Strategy 4: To improve the heritage and innovation of recreational sports programs. Strategy 5: Scientifically and rationally develop Recreational and

sports time for elderly people with depression.

Finally, the feasibility of the policy was assessed and it was assessed that the mean value of the strategy was 4.48 with a standard deviation of 0.50, indicating that the strategy was highly feasible.

This assessment is similar in content to General Administration of Sport (2022), “Circular of the General Administration of Sport on Further Improving the Work of Sports for the Elderly”. (General Administration of Sport, 2022) The document suggests that: effectively responding to the aging and health of China's population is a matter of the overall situation of the country's development, and that the work of sports for the elderly is an important part of the cause of the aging and the cause of sports in our country, and that it should be stood on the high level of the implementation of the national strategy of national fitness. Therefore, scientific and feasible exercise strategies for geriatric patients can be reported to the relevant departments through review, recommendation and trial implementation. The government should take the lead in promoting the relevant strategies in an integrated and coordinated manner through a multi-departmental approach, with the cooperation of a variety of civil society organizations and the assistance of enterprises, so as to give full play to the positive role of sports in coping with the ageing of the population, effectively strengthen the guidance and coordination of sports work for the elderly, vigorously develop the cause of sports for the elderly, and safeguard and protect the rights and interests of the elderly in sports and physical fitness.

At the same time, the results of this assessment are in line with the opinion of the Healthy China Action Promotion Committee, “Healthy China Action (2019-2030)”, (Healthy China Action Promotion Committee, 2019) which suggests that China is the country with the largest elderly population in the world. It is of great significance to carry out actions to promote health through exercise for the elderly to improve the health of the elderly, improve their quality of life, and achieve healthy aging. The details are as follows:

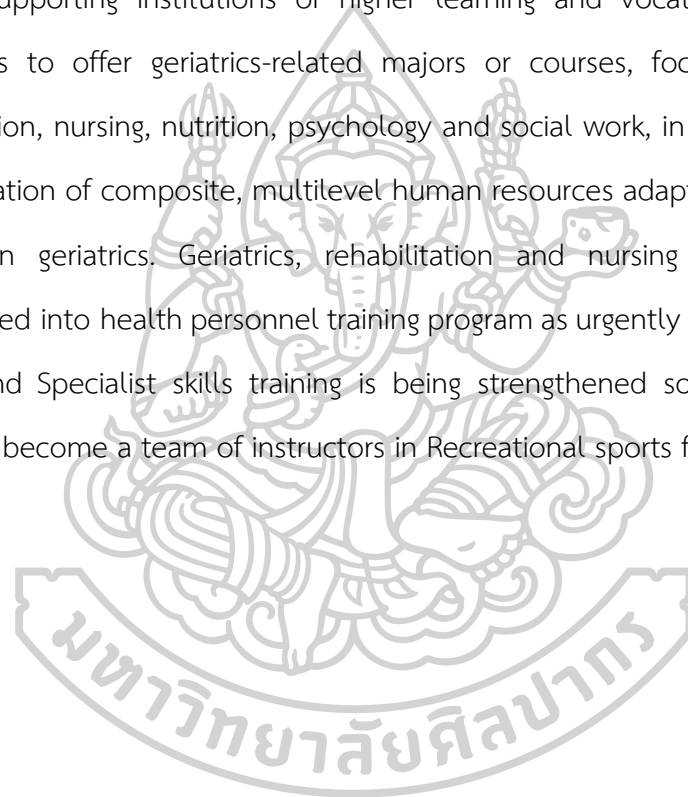
(1) Encourage and support social forces such as universities for the elderly, activity centers for the elderly, grass-roots associations for the elderly and qualified social organizations to organize and carry out various healthy exercises for elderly patients.

(2) Geriatric patients should be instructed to choose exercise methods that are compatible with their own physique and health condition, and to engage in Recreational sports according to their ability. While attaching importance to aerobic exercise, it also attaches importance to muscle strength exercise and flexibility exercise, appropriate balance ability exercise, strengthening the skeletal muscle system, and treating Elderly depression in an all-round, whole-hearted and systematic way. Meanwhile, during the period of participation in sports, it is recommended that the amount of exercise and exercise time be adjusted in a timely manner according to the health condition.

(3) Encourage geriatric patients to exercise more, use their brains more and participate in more social interactions, so as to slow down the aging process and prevent mental disorders and psychological and behavioral problems through a healthy lifestyle.

(4) Encouraging health-service-related enterprises to take into account the physical and mental characteristics of the elderly, and to vigorously develop diversified services such as health maintenance, health check-ups, counselling and management, physical fitness measurement, physical fitness, sports rehabilitation, health tourism and other services, and to enrich a variety of Recreational sports and activities.

(5) Supporting institutions of higher learning and vocational colleges and universities to offer geriatrics-related majors or courses, focusing on geriatrics, rehabilitation, nursing, nutrition, psychology and social work, in order to accelerate the cultivation of composite, multilevel human resources adapted to the concepts of modern geriatrics. Geriatrics, rehabilitation and nursing talents are being incorporated into health personnel training program as urgently needed and in short supply, and Specialist skills training is being strengthened so that they can be trained to become a team of instructors in Recreational sports for the elderly.



5.3 Recommendation

5.3.1 Suggestions for strategy application

Strategy is the guiding ideology of action, the design of the strategy to achieve adequate, detailed, feasible, but also in practice due to a variety of actual circumstances or emergencies and the emergence of a variety of implementation deviations, so the application of the strategy should have a certain degree of flexibility, in order to give full play to the strategy of the actual role of the community, so as to produce real social value. Flexibility encompasses:

(1) Funding subsidies: If the subsidies cannot be put in place in time and in full because of the overall economic downturn, the social financing approach should be fully utilized by adopting a special case approach to speed up the approval of the funding subsidies in various social categories, and at the same time, the government departments should ensure that the implementation of the provision of administrative support services is also ensured.

(2) Recreational and sports venues: China is a country with little land and many people, plus the population distribution in China has always been highly concentrated in urban areas and overly dispersed in the countryside, resulting in the land for recreational and sports in the urban areas being constantly squeezed by various types of commercial housing and commercial buildings, and the countryside also being unable to establish recreational and sports venues on a certain scale because of the lack of a strong concentration. Therefore, when applying the strategy, the government's administrative function should be brought into full play to make scientific adjustments, planning and design of recreational and sports venues according to the actual situation and the available resources in terms of land

planning in the urban areas and the rational use of existing government building sites in the villages, so as to ensure the implementation of the strategy.

(3) Physical education instructors for recreational sports: the level of wages is an important factor in the training, distribution and appointment of physical education instructors, so to apply the strategy, it is necessary to make timely adjustments to the main body of expenditure on wages and the proportion of distribution, and these arrangements are the material basis for the implementation of the strategy.

(4) Recreational sports program: Although these Recreational sports program for the elderly, such as Qigong, Taiji, Baduanjin and square dance, have been very maturely applied to the treatment of diseases of the elderly in our country, the introduction and promotion of new types of Recreational sports program for the better application of the strategy requires the joint efforts of the government and the General Administration of Sport.

(5) Recreational sports time: Although there will be a clear guide to the time of Recreational sports for elderly people with depression in the future, each elderly person with depression is an individual, so if we want to ensure the effective application of the strategy, i.e., to alleviate the symptoms of depression by means of Recreational sports, we should also be more scientifically detailed when we formulate the time of Recreational sports according to the individual.

5.3.2 Suggestions for future research on the strategy

Due to the short time of this study and my limited ability, there are many aspects of this strategy that can be continued in the future:

(1) This strategy is only to Maoming City, urban areas, villages and elderly homes as the target of the survey, the data is inevitably biased, if future research can expand the scope of the survey, increase the various classes of elderly patients as the target of the survey, I believe that the strategy will be more perfect and refined.

(2) This strategy only takes Maoming City as the area of investigation. Due to the vastness of China's territory and the different ways in which governments implement and supervise their policies, in order to better improve future research on the strategy, the geographical area of study should be expanded to include the provinces of Guangdong and other provinces.

(3) This strategy only takes Han Chinese people as the investigation object, because China is a society composed of multi-ethnic people, the customs and habits of people of various ethnicities are different, in order to better improve the future research on the strategy, the research object should be adjusted to expand to the elderly depression patients of various ethnicities, which ensures the ethnic characteristics of the strategy.

Summary: From the writing, revising, evaluating, and finalizing of the strategy, it is all about designing an exercise management strategy suitable for elderly depressed patients in Guangdong Province to alleviate the symptoms of depression by means of recreational sports, with the aim of hoping that the strategy can really help the elderly

depressed patients in practice, and that it can alleviate their illnesses while improving their quality of life and mental status, so as to make this strategy experiment its wonderful initial. The purpose of this strategy is to help the elderly patients with depression.



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APPENDIX

1. Research Tools
 - (1) Questionnaires
 - (2) Interviews
 - (3) Evaluation of feasibilities
2. Experts
 - (1) IOC 3 Experts
 - (2) Connoisseurship 9 Experts
3. Photos
 - (1) Questionnaires
 - (2) Interviews
 - (3) Connoisseurship
 - (4) Evaluation of feasibilities





1. Research Tools

1. Questionnaires-1

Introduction to the Short Version Geriatric Depression Scale-15 Short Version Geriatric Depression Scale (GDS-15)

Geriatric depression is the most common psychogeriatric problem. In China, the proportion of major depression is about 3% - 5%, but mild depression and chronic depression are quite high, accounting for nearly 40%. Depression can usually be recovered with timely recognition and appropriate treatment. Accurate screening and timely intervention are critical to reduce depressive symptoms in the elderly, and most screening tools use the

Geriatric Depression Scale (GDS).

The Geriatric Depression Scale (GDS) was designed to be a more sensitive screening tool for symptoms specific to depressed older adults. The GDS is more applicable to older adults than other depression scales because it is easier to administer than other scales with direct "yes" and "no" answers.

There are two versions of the GDS, a 30-question version created by American psychologists Brinkt and Yesavage in 1982 and a 15-question version((GDS-15) adapted by Yesavage and another colleague, Sheikh, in 1986.

This dissertation focuses on the shorter 15-question version, which is much shorter and easier to administer, taking only five to seven minutes to complete. Its reliability and validity have likewise been recognized by numerous researchers and psychologists, and it has been widely used in community, acute, and long-term care services, and has been more satisfactorily adapted for use with the Chinese geriatric population.

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Appendix 1

Questionnaire **I**

Short Version Geriatric Depression Scale (GDS-15)

Name:

Gender:

Age:

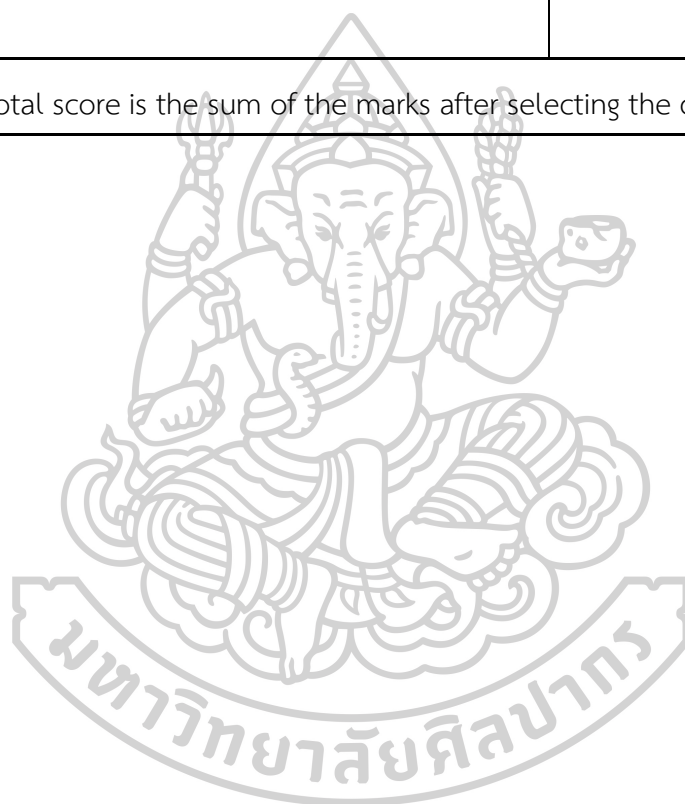
Questionnaire location:

Depression

level:

Based on the following questions, please choose the best answer for how you felt during the past week	Yes	No
1. Are you basically satisfied with your life?	0 point	1 point
2. Have you given up many hobbies and interests?	1 point	0 point
3. Do you feel that life is empty?	1 point	0 point
4. Are you often bored?	1 point	0 point
5. Are you energetic most of the time?	0 point	1 point
6. Are you afraid that something bad will happen to you?	1 point	0 point
7. Do you feel happy most of the time?	0 point	1 point
8. Do you often feel isolated?	1 point	0 point
9. Do you prefer to stay at home rather than go outside and do something new?	1 point	0 point
10. Do you feel that your memory is worse than before?	1 point	0 point
11. Do you feel happy to be alive now?	0 point	1 point
12. Do you find it pointless to live like this?	1 point	0 point
13. Do you feel energised by life?	0 point	1 point

Based on the following questions, please choose the best answer for how you felt during the past week	Yes	No
14. Do you feel that your situation is hopeless?	1 point	0 point
15. do you feel that most people are much better than you are?	1 point	0 point
Score:		
Total Score:		
Note: The total score is the sum of the marks after selecting the corresponding option.		



Scoring criteria for the short version of the Geriatric Depression Scale (GDS-15) (Appendix I)(Questionnaire I) and the use of the scale for determining the degree of depression:

1. Scoring criteria for GDS-15

The GDS-15 consists of 15 multiple-choice questions, each with two answers: "yes" and "no". The patient has to answer each question according to his/her own situation. Each question score depends on the corresponding score of the answer. The final score depends on the total number of points the patient receives for each of the 15 questions.

2. The following are specific GDS-15 scales for determining the level of depression:

0-4: No depressive symptoms 5-9: Mild depression 10-14: Moderate depression

15 and above: major depression

The results of the GDS-15 assessment are often used in conjunction with other methods, such as clinical laboratory tests and physician interviews, to determine the presence of geriatric depression and to help physicians develop a treatment plan.

Expert Assessment

Dear Experts:

Greetings!

This study is about Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. In order to ensure that the content and results of the survey strongly support the strategies, as well as to ensure the science and effectiveness of developing the strategies, we have adopted the Short Version Geriatric Depression Scale (GDS-15). We kindly ask you to evaluate the validity test of this scale. Thank you for your help in reviewing and guiding in your busy schedule, your suggestions will be of great help to the successful completion of this thesis.

I wish you all the best!

(Appendix: +1 = Measurement question meets its objectives

0=Unsure if the measurement problem meets its objectives

-1=Measurement problem does not meet its objectives)

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Appendix 2

(Recycling of Xiao Jingsong 's Expert Score Sheet- I)

Short Version Geriatric Depression Scale (GDS-15) (Questionnaire I)

IOC Expert Validity Checklist

Question	Answers	Ratings			Suggestions
		+1	0	-1	
1. Is the scale appropriate for the national context?	Yes	+1			—
2. Is the scale appropriate for use in older adults with depression in this country?	Yes	+1			—
3. Is the scale comprehensive?	Yes	+1			—
4. Is the scale easy to administer?	Yes	+1			—
5. Are the results of the scale reliable?	Yes	+1			—
6. Is the scale superior to other scales of the same type?	Yes	+1			—

Signature: Xiao Jingsong Inaugural department or school and faculty:

Department of Neurology, Zhongnan Hospital, Wuhan University

Title: Professor Date:2024.04.28

Short Version Geriatric Depression Scale (GDS-15) (Questionnaire I)

IOC Expert Validity Checklist

Question	Xiao	Qiu	Fang	Xiao	Qiu	Fang	Xiao	Qiu	Fang
	Answers			Ratings			Suggestions		
1. Is the scale appropriate for the national context?	Yes	Yes	Yes	+1	+1	+1	—	—	—
2. Is the scale appropriate for use in older adults with depression in this country?	Yes	Yes	Yes	+1	+1	+1	—	—	—
3. Is the scale comprehensive?	Yes	Yes	Yes	+1	+1	+1	—	—	—
4. Is the scale easy to administer?	Yes	Yes	Yes	+1	+1	+1	—	—	—
5. Are the results of the scale reliable?	Yes	Yes	Yes	+1	+1	+1	—	—	—
6. Is the scale superior to other scales of the same type?	Yes	Yes	Yes	+1	+1	+1	—	—	—

2. Questionnaires-2

Demand for Participation in Recreational Sports to Treat Depressive Symptoms among Elderly Depressed Patients in the Guangdong Community

Dear community geriatric patients: Greetings!

This is a questionnaire about the development of strategies to improve the symptoms of depression through recreational sports for elderly patients with depression in Guangdong Province. The purpose of this questionnaire is to listen to your views on the needs of various aspects of recreational sports from the perspective of the elderly patients with depression, and we would like to ask you to take out your precious time to complete the questionnaire with all your heart. We will keep your answers to this questionnaire confidential and will not disclose any information.

Thank you for your cooperation and support. We wish you all the best!

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Appendix 6

Questionnaire II

Demand for Participation in Recreational Sports to Treat Depressive Symptoms
among Elderly Depressed Patients in the Guangdong Community

(Tick “√” selected items)

I. Basic situation:

1. Your gender:

() A. Male () B. Female

2. Your age:

() A. 60-64 () B. 65-69 () C. 70-74 () D. 75-79

3. Your ethnicity:

() A. Han Minorities () B. Ethnic Minorities

4. Do you have any religious beliefs?

() A. Yes () B. No

5. Your cultural level:

() A. Elementary school () B. Middle school

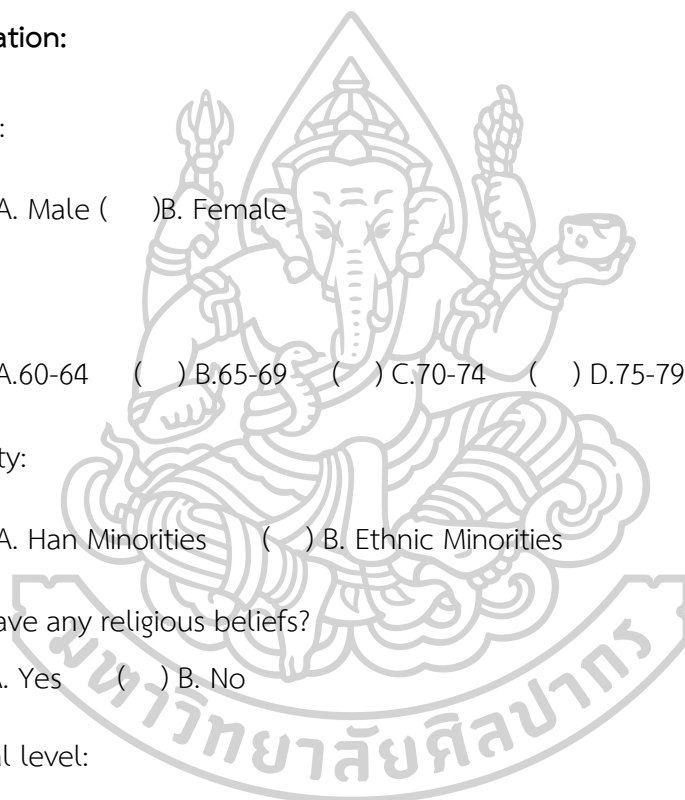
() C. High school () D. University

6. Your marital status:

() A. Married () B. Unmarried

7. Your number of children:

() A. 1 () B. 2 () C. 3 and above () D. No children



8. The nature of your household:

() A. Urban household registration () B. Rural household registration

9. Your job type:

() A. Civil servant () B. Enterprise personnel

() C. Self-employed personnel () D. Migrant workers () E. Farmer

10. Your main source of finance:

() A. Pension () B. Savings () C. Children's allowance

() D. Financial support from relatives and friends () E. Other

11. Your main source of medical expenses:

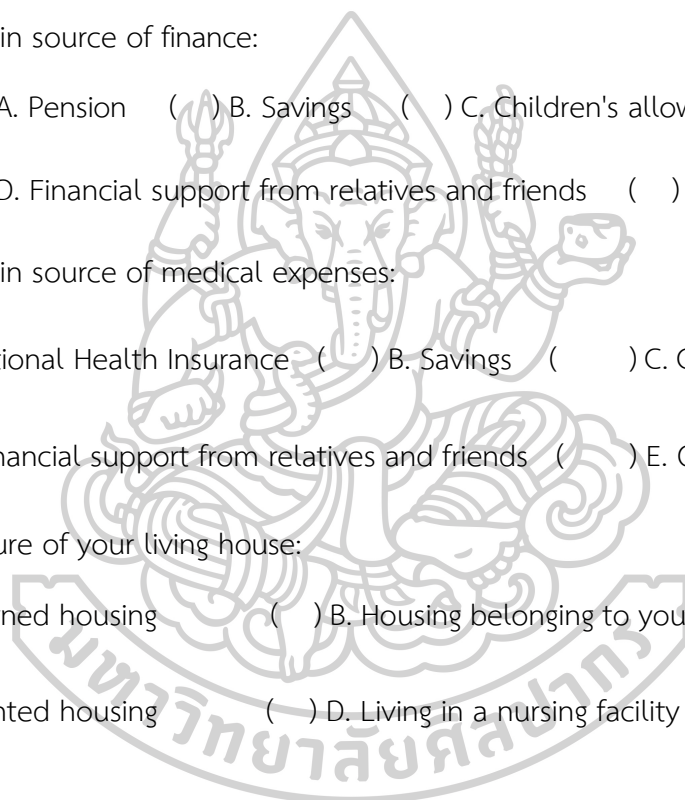
() A. National Health Insurance () B. Savings () C. Children's allowance

() D. Financial support from relatives and friends () E. Others

12. The nature of your living house:

() A. Owned housing () B. Housing belonging to your children

() C. Rented housing () D. Living in a nursing facility



Depressive symptoms situation:

13. Your evaluation of your own health condition:

A. Good B. General C. Not so good D. Very bad

14. Your evaluation of your own nutritional status:

A. Good B. General C. Not so good D. Very bad

15. Your evaluation of your own sleep condition:

A. Good B. General C. Not so good D. Very bad

16. The degree of your depressive symptoms:

A. Severe B. Moderate C. Mild D. No feeling

17. Your depressive symptoms mainly stem from:

A. Financial reasons B. Family reasons

C. Physical illness reasons D. Other

18. The methods you used to improve your depressive symptoms during the three months:

A. Taking medication B. Psychotherapy

C. Counseling D. Recreational sports

E. No methods were used

Recreational sports:**(Questions About: Awareness of recreational Sports)**

19. How well do you know the contents of recreational sports?

- () A. Know it very well () B. Know it () C. Know it generally |
() D. Don't know it at all

20. How much do you know about recreational sports programs?

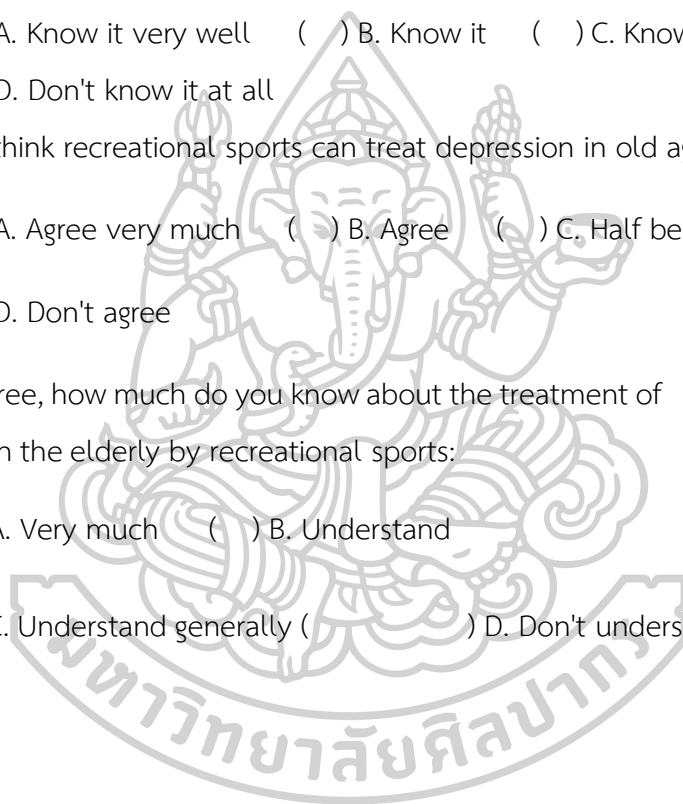
- () A. Know it very well () B. Know it () C. Know it generally
() D. Don't know it at all

21. Do you think recreational sports can treat depression in old age?

- () A. Agree very much () B. Agree () C. Half believe
() D. Don't agree

22. If you agree, how much do you know about the treatment of depression in the elderly by recreational sports:

- () A. Very much () B. Understand
() C. Understand generally () D. Don't understand



(Questions about: time aspects of recreational sports)

23. How much recreational time do you have on average every day?

A. Less than 1 hour B. 1-2 hours C. 2-3 hours

D. More than 3 hours

24. On average, how much time do you have for recreational sports every day?

A. Less than 1 hour B. 1-2 hours C. 2-3 hours

D. More than 3 hours

25. The time period during which you can participate in recreational sports: (multiple choices allowed)

A. Morning B. Afternoon C. Evening D. Other times

26. The time period you prefer to participate in recreational sports: (Multiple choices allowed)

A. Morning B. Afternoon C. Evening D. Other times

27. On average, how many days a week can you participate in recreational sports:

A. 1 day B. 2 days C. 3 days D. 4 days

E. 5 days F. 6 days G. 7 days

(Questions about: Content aspects of recreational sports)

28. Please draw a sequential number for the recreational sports that you think are beneficial to participate in the treatment of geriatric depression: (use 1, 2... numbers starting from the most favorable and decreasing in order)

- () A. Chorus () B. Musical Instrument Playing
- () C. Chinese Calligraphy and Painting () D. Playing Chess
- () E. Making Handicrafts () F. Indoor Fitness
- () G. Yoga for the Elderly () H. Playing Table Tennis
- () I. Taking a Walk () J. Jogging () K. Playing Taijiquan () L. Qigong
- () M. Gymnastics () N. Sword Practice () O. Square Dancing

29. The reasons why you like the recreational sports you participate in are: (Multiple choices allowed)

- () A. The movements are simple and easy to learn
- () B. Economical () C. Following friends' choices
- () D. Nearby sports venues

30. What recreational sport do you think is more conducive to the treatment of depression in old age when you participate in? (Multiple choices allowed)

- () A. Chorus () B. Musical Instrument Playing
- () C. Chinese Calligraphy and Painting () D. Playing Chess
- () E. Making Handicrafts () F. Indoor Fitness
- () G. Yoga for the Elderly () H. Playing Table Tennis () I. Taking a walk
- () J. Jogging () K. Playing Taijiquan () L. Qigong
- () M. Gymnastics () N. Sword Practice () O. Square Dancing

(Questions about: strategy development for treating depression in older adults through participation in recreational sports)

31. The number of days per week you would recommend treating depression through participation in recreational sports are:

() A.1day () B.2 days () C.3 days () D.4days

() E.5days () F.6days () G.7days

32. The amount of time per day that you would recommend treating depression by participating in recreational sports is:

() A. Less than 1 hour () B. 1-2 hours () C. 2-3 hours () D. More than 3 hours

33. The area you suggest needs improvement in developing strategies for treating depression through participation in recreational sports is: (Multiple choice)

() A. Requirements for sports venues () B. Requirements for instructors

() C. Requirements for improvement of sports programs () D. Requirements for government funding subsidies

34. The aspects of the requirements for sports venues that you suggest need to be improved in developing strategies are: (Multiple choices allowed)

() A. Requirements on the size of sports venues

() B. Requirements on the ease of transportation to sports venues

() C. Requirements for safety at sports venues

() D. Requirements for facilities at sports venues

35. The aspects of the requirements for instructors that you suggest need to be improved in developing strategies are: (Multiple choices allowed)

() A. Requirements on professionalism () B. Requirements on patience

() C. Requirements on sufficient time

() D. Requirements on being able to adjust patients' emotions

36. What would you suggest as an area for improvement in the development of strategies for the requirements of exercise programs?

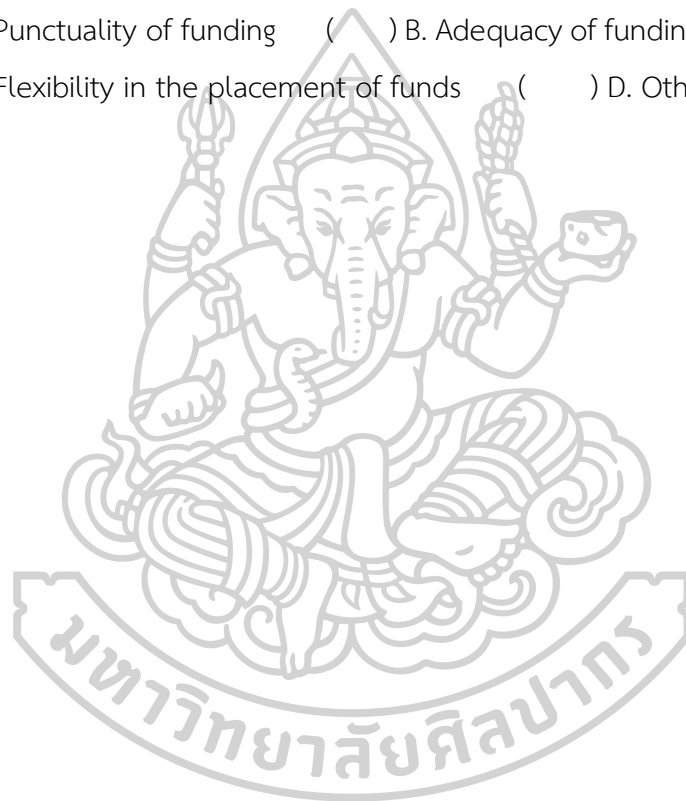
() A. Variety of exercise programs () B. Fun

() C. Interaction between patients () D. Innovation

37. The area you suggest needs to be improved in the development of strategies for the requirement of government funding subsidies is: (Multiple choice allowed)

() A. Punctuality of funding () B. Adequacy of funding

() C. Flexibility in the placement of funds () D. Other



Expert Assessment

Dear Experts:Greetings!

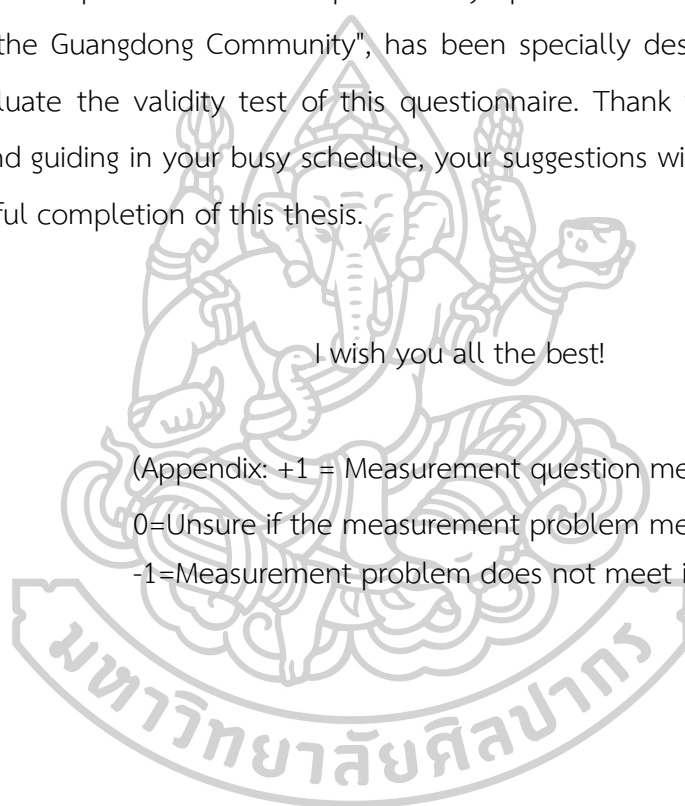
This study is about Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. In order to ensure that the content and results of the survey strongly support the strategies, as well as to ensure the science and effectiveness of developing the strategies, a questionnaire, " Demand for Participation in Recreational Sports to Treat Depressive Symptoms among Elderly Depressed Patients in the Guangdong Community", has been specially designed. We kindly ask you to evaluate the validity test of this questionnaire. Thank you for your help in reviewing and guiding in your busy schedule, your suggestions will be of great help to the successful completion of this thesis.

I wish you all the best!

(Appendix: +1 = Measurement question meets its objectives

0=Unsure if the measurement problem meets its objectives

-1=Measurement problem does not meet its objectives)



Faculty of Education, Silpakorn University, Thailand Ph.D.

in Recreation, Tourism and Sports Management

Dongling Chen

3. Questionnaires-3

Appendix 7

Demand for Participation in Recreational Sports to Treat Depressive
Symptoms among Elderly Depressed Patients in the Guangdong Community

(Questionnaire II) IOC Expert Validity Checklist

Question	Answers	Ratings			Suggestions
		+1	0	-1	
I. Basic situation					
1. Your gender	() A. Male () B. Female				
2. Your age	() A. 60-65 () B. 65-70 () C. 70-75 () D. 75-80				
3. Your ethnicity	() A. Han Minorities () B. Ethnic Minorities				
4. Do you have any religious beliefs?	() A. Yes () B. No				
5. Your cultural level	() A. Elementary school () B. Middle school () C. High school () D. University				
6. Your marital status	() A. Married () B. Unmarried				
7. Your number of children	() A. 1 () B. 2 () C. 3 and above () D. No children				
8. The nature of your household	() A. Urban household registration () B. Rural household registration				
9. Your job type	() A. Civil servant () B. Enterprise personnel () C. Self-employed personnel () D. Migrant workers () E. Farmer				

Question	Answers	Ratings			Suggestions
		+1	0	-1	
10. Your main source of finance	<input type="checkbox"/> A. Pension () B. Savings <input type="checkbox"/> C. Children's allowance <input type="checkbox"/> D. Financial support from relatives and friends <input type="checkbox"/> E. Other				
11. Your main source of medical expenses	<input type="checkbox"/> A. National Health Insurance () B. Savings <input type="checkbox"/> C. Pension <input type="checkbox"/> D. Children's allowance <input type="checkbox"/> E. Financial support from relatives and friends <input type="checkbox"/> F. Others				
12. The nature of your living house	<input type="checkbox"/> A. Owned housing <input type="checkbox"/> B. Housing belonging to your children <input type="checkbox"/> C. Rented housing <input type="checkbox"/> D. Living in a nursing facility				
II. Depressive symptoms situation					
13. Your evaluation of your own health condition	<input type="checkbox"/> A. Good <input type="checkbox"/> B. General <input type="checkbox"/> C. Not so good () D. Very bad				

Question	Answers	Ratings			Suggestions
		+1	0	-1	
14. Your evaluation of your own nutritional status	() A. Good () B. General () C. Not so good () () D. Very bad				
15. Your evaluation of your own sleep condition	() A. Good () B. General () C. Not so good () () D. Very bad				
16. The degree of your depressive symptoms	() A. Severe () B. Moderate () C. Mild () D. No feeling				
17. Your depressive symptoms mainly stem from	() A. Financial reasons () B. Family reasons () C. Physical illness reasons () D. Other				
18. The methods you used to improve your depressive symptoms during the three months	() A. Taking medication () B. Psychotherapy () C. Counseling () D. Recreational sports () E. No methods were used				
III. Recreational sports					
(Questions About: Awareness of recreational Sports)					
19. How well do you know the contents of recreational sports?	() A. Know it very well () B. Know it () C. Know it generally () D. Don't know it at all				
20. How much do you know about recreational sports Programs?	() A. Know it very well () B. Know it () C. Know it generally () D. Don't know it at all				

Question	Answers	Ratings			Suggestions
		+1	0	-1	
21. Do you think recreational sports can treat depression in old age?	<input type="checkbox"/> A. Agree very much () B. Agree <input type="checkbox"/> C. Half believe <input type="checkbox"/> D. Don't agree				
22. If you agree, how much do you know about the treatment of depression in the elderly by recreational sports	<input type="checkbox"/> A. Very much () B. Understand <input type="checkbox"/> C. Understand generally <input type="checkbox"/> D. Don't understand				
(Questions about: time aspects of recreational sports)					
23. How much recreational time do you have on average every day?	<input type="checkbox"/> A. Less than 1 hour () <input type="checkbox"/> B. 1-2 hours <input type="checkbox"/> C. 2-3 hours <input type="checkbox"/> D. More than 3 hours				
24. On average, how much time do you have for recreational sports every day?	<input type="checkbox"/> A. Less than 1 hour () <input type="checkbox"/> B. 1-2 hours <input type="checkbox"/> C. 2-3 hours <input type="checkbox"/> D. More than 3 hours				
25. The time period during which you can participate in recreational sports: (multiple choices allowed)	<input type="checkbox"/> A. Morning () <input type="checkbox"/> B. Afternoon () <input type="checkbox"/> C. Evening <input type="checkbox"/> D. Other times				
26. The time period you prefer to participate in recreational sports: (Multiple choices allowed)	<input type="checkbox"/> A. Morning () <input type="checkbox"/> B. Afternoon () <input type="checkbox"/> C. Evening <input type="checkbox"/> D. Other times				
27. On average, how many days a week can you participate in recreational sports	<input type="checkbox"/> A. 1 day <input type="checkbox"/> B. 2 days <input type="checkbox"/> C. 3 days <input type="checkbox"/> D. 4 days <input type="checkbox"/> E. 5 days <input type="checkbox"/> F. 6 days () <input type="checkbox"/> G. 7 days				

Question	Answers	Ratings			Suggestions
		+1	0	-1	
(Questions about: Content aspects of recreational sports)					
28. Please draw a sequential number for the recreational sports that you think are beneficial to participate in the treatment of geriatric depression: (use 1, 2... numbers starting from the most favorable and decreasing in order)	<input type="checkbox"/> A. Chorus <input type="checkbox"/> B. Musical Instrument Playing () <input type="checkbox"/> C. Chinese Calligraphy and Painting <input type="checkbox"/> D. Playing Chess <input type="checkbox"/> E. Making Handicrafts () F. Indoor Fitness <input type="checkbox"/> G. Yoga for the Elderly () <input type="checkbox"/> H. Playing Table Tennis () <input type="checkbox"/> I. Taking a Walk <input type="checkbox"/> J. Jogging <input type="checkbox"/> K. Playing Taijiquan () <input type="checkbox"/> L. Qigong <input type="checkbox"/> M. Gymnastics <input type="checkbox"/> N. Sword Practice () <input type="checkbox"/> O. Square Dancing				
29. The reasons why you like the recreational sports you participate in are	<input type="checkbox"/> A. The movements are simple and easy to learn <input type="checkbox"/> B. Economical <input type="checkbox"/> C. Following friends' choices () <input type="checkbox"/> D. Nearby sports venues				
30. What recreational sport do you think is more conducive in? (Multiple choices allowed) to the treatment of depression in old age when you participate	<input type="checkbox"/> A. Chorus <input type="checkbox"/> B. Musical Instrument Playing () <input type="checkbox"/> C. Chinese Calligraphy and Painting <input type="checkbox"/> D. Playing Chess <input type="checkbox"/> E. Making Handicrafts () F. Indoor Fitness <input type="checkbox"/> G. Yoga for the Elderly () <input type="checkbox"/> H. Playing Table Tennis () <input type="checkbox"/> I. Taking a Walk <input type="checkbox"/> J. Jogging <input type="checkbox"/> K. Playing Taijiquan () <input type="checkbox"/> L. Qigong <input type="checkbox"/> M. Gymnastics				

Question	Answers	Ratings			Suggestions
		+1	0	-1	
	()N. Sword Practice ()O. Square Dancing				
(Questions about: strategy development for treating depression in older adults through participation in recreational sports)					
31.The number of days per week you would recommend treating depression through participation in recreational sports are:	() A.1day () B.2 days () C.3 days () D.4days () E.5days () F.6days () G.7days				
32. The amount of time per day that you would recommend treating depression by participating in recreational sports is: (Multiple choices allowed)	() A. 30 minutes () B. 30 minutes -1 hour () C. 1 hour -1 hour and 30 minutes () D. 1 hour and 30 minutes -2 hours				
33. The area you suggest needs improvement in developing strategies for treating depression through participation in recreational sports are: (Multiple choice)	() A. Requirements for sports venues () B. Requirements for instructors () C. Requirements for improvement of sports programs () D. Requirements for government funding subsidies				
34. The aspects of the requirements for sports venues that you suggest need to be improved in developing strategies are: (Multiple choices allowed)	() A. Requirements on the size of sports venues () B. Requirements on the ease of transportation to sports venues () C. Requirements for safety at sports venues () D. Requirements for facilities at sports venues				

Question	Answers	Ratings			Suggestions
		+1	0	-1	
35. The aspects of the requirements for instructors that you suggest need to be improved in developing strategies are: (Multiple choices allowed)	() A. Requirements on professionalism () B. Requirements on patience () C. Requirements on sufficient time () D. Requirements on being able to adjust patients' emotions				
36. What would you suggest as an area for improvement in	() A. Variety of exercise programs () B. Fun				
the development of strategies for the requirements of exercise programs?	() C. Interaction between patients () D. Innovation				
37. The area you suggest needs to be improved in the development of strategies for the requirement of government funding subsidies is: (Multiple choice allowed)	() A. Punctuality of funding () B. Adequacy of funding () C. Flexibility in the placement of funds () D. Other				



Demand for Participation in Recreational Sports to Treat Depressive Symptoms among Elderly Depressed Patients in the Guangdong Community (Questionnaire II)

IOC Expert Validity Checklist

Question	Answers			Ratings			Suggestions			IOC
	Xiao	Qiu	Fang	Xiao	Qiu	Fang	Xiao	Qiu	Fang	
I. Basic situation										
1. Your gender	+1	0	-1							
() A. Male	+1	+1	+1							1
() B. Female	+1	+1	+1							1
2. Your age										
() A. 60-65	+1	+1	+1							1
() B. 65-70										
() C. 70-75										
() D. 75-80										
3. Your ethnicity										
() A. Han Minorities	+1	+1	+1							1
() B. Ethnic Minorities										
4. Do you have any religious beliefs?	+1	+1	+1							1
() A. Yes										
() B. No										
5. Your cultural level	0	+1	+1							
() A. Elementary school										
() B. Middle school ()										
C. High school										
() D. University										
							Add the option "E. Illiteracy"			0.666667

Question	Answers	Ratings			Suggestions			Fang	IOC
		Xiao	Qiu	Fang	Xiao	Qiu	Fang		
6.Your marital status	() A. Married () B. Unmarried	+1	0	-1	—	—	—	0.666667	
7.Your number of children	() A.1 () B.2 () C.3 and above () D. No children	+1	+1	+1	—	—	—	1	
8.The nature of your household	() A. Urban household registration () B. Rural household registration	+1	+1	+1	—	—	—	1	
9.Your job type	() A. Civil servant () B. Enterprise personnel () C. Self-employed personnel () D. Migrant workers () E. Farmer	+1	+1	+1	—	—	—	1	
10.Your main source of finance	() A. Pension () B. Savings () C. Children's allowance	+1	+1	+1	—	—	—	1	

Question	Answers			Ratings			Suggestions			IOC
	Xiao	Qiu	Fang	Xiao	Qiu	Fang	Xiao	Qiu	Fang	
	+1	0	-1							
	() D. Very bad									
14. Your evaluation of your own nutritional status	() A. Good () B. General () C. Not so good () D. Very bad	+1	+1	+1			—		—	1
15. Your evaluation of your own sleep condition	() A. Good () B. General () C. Not so good () D. Very bad	+1	+1	+1			—		—	1
16. The degree of your depressive symptoms	() A. Severe () B. Moderate C. Mild () D. No feeling	+1	+1	+1			—		—	1
17. Your depressive symptoms mainly stem from	() A. Financial reasons B. Family reasons () C. Physical illness reasons () D. Other	+1	+1	0			—		Add the option "D.Social reasons"	0.666667
18. The methods you used to improve your depressive symptoms during the three months	() A. Taking medication Psychotherapy () C. Counseling	+1	+1	+1			—		—	1

Question	Answers	Xiao	Qiu	Fang	Xiao	Qiu	Fang	Suggestions	Fang	IOC
		Ratings								
		+1	0	-1						
	() D. Recreational sports () E. No methods were used									
III. Recreational sports										
(Questions About: Awareness of recreational Sports)										
19. How well do you know the contents of recreational sports?	() A. Know it very well () B. Know it () C. Know it generally () D. Don't know it at all	+1	+1	+1						1
20. How much do you know about recreational sports Programs?	() A. Know it very well () B. Know it () C. Know it generally () D. Don't know it at all	+1	+1	+1						1
21. Do you think recreational sports can treat depression in old age?	() A. Agree very much () B. Agree () C. Half believe () D. Don't agree	+1	+1	+1						1
22. If you agree, how much do you know about the treatment of depression in	() A. Very much () B. Understand () C. Understand generally	+1	+1	+1						1

Question	Answers	Xiao	Qiu	Fang	Xiao	Qiu	Fang	IOC
		Ratings			Suggestions			
the elderly by recreational sports	() D. Don't understand	+1	0	-1				
(Questions about: Time aspects of recreational sports)								
23.How much recreational time do you have on average every day?	() A. Less than 1 hour ()B. 1-2 hours () C. 2-3 hours () D. More than 3 hours	+1	+1	+1	-	-	-	1
24. On average, how much time do you have for recreational sports every day?	() A. Less than 1 hour ()B. 1-2 hours () C. 2-3 hours () D. More than 3 hours	+1	+1	+1	-	-	-	1
25. The time period during which you can participate in recreational sports: (multiple choices allowed)	() A. Morning ()B. Afternoon ()C. Evening () D. Other times	+1	+1	+1	-	-	-	1
26.The time period you prefer to participate in recreational sports: (Multiple choices allowed)	() A. Morning ()B. Afternoon ()C. Evening () D. Other times	+1	+1	+1	-	-	-	1

Question	Answers			Ratings			Suggestions			IOC
	Xiao	Qiu	Fang	Xiao	Qiu	Fang	Xiao	Qiu	Fang	
27. On average, how many days a week can you participate in recreational sports	() A. 1 day () B. 2 days () C. 3 days () D. 4 days () E. 5 days () F. 6 days () G. 7 days	+1 0 +1	-1 +1	Replace with "() A. 1-2 days () B. 3-4 days () C. 5-6 days () D. 7 days	—	—	—	—	—	0.666667
(Questions about: Content aspects of recreational sports)										
28. Please draw a sequential number for the recreational sports that you think are beneficial to participate in the treatment of geriatric depression: (use 1, 2... numbers starting from the most favorable and decreasing in order)	() A. Chorus () B. Musical Instrument Playing () C. Chinese Calligraphy and Painting () D. Playing Chess () E. Making Handicrafts () F. Indoor Fitness () G. Yoga for the Elderly () H. Playing Table Tennis () I. Taking a Walk	+1 +1	+1	—	—	—	—	—	—	1

Question	Answers			Ratings			Suggestions			IOC
	Xiao	Qiu	Fang	Xiao	Qiu	Fang	Xiao	Qiu	Fang	
	+1	0	-1							
	() J. Jogging () K. Playing Taijiquan () L. Qigong () M. Gymnastics () N. Sword Practice () O. Square Dancing									
(Questions about: strategy development for treating depression in older adults through participation in recreational sports)										
31. The number of days per week you would recommend treating depression through participation in recreational sports are:	0	+1	+1				Replace with "() A. 1-2 days () B. 3-4 days () C. 5-6 days () D. 7days"	—	—	0.666667
32. The amount of time per day that you would recommend treating	+1	+1	+1				—	—	—	1

Appendix 9

Questionnaire II

Demand for Participation in Recreational Sports to Treat Depressive Symptoms among Elderly Depressed Patients in the Guangdong Community (revised version)

(Tick “√” selected items)

I. Basic situation:

1. Your gender:

A. Male B. Female

2. Your age:

A. 60-64 B. 65-69 C. 70-74 D. 75-79

3. Your ethnicity:

A. Han Minorities B. Ethnic Minorities

4. Do you have any religious beliefs? A. Yes B. No

5. Your cultural level:

A. Elementary school B. Middle school C. High school

D. University

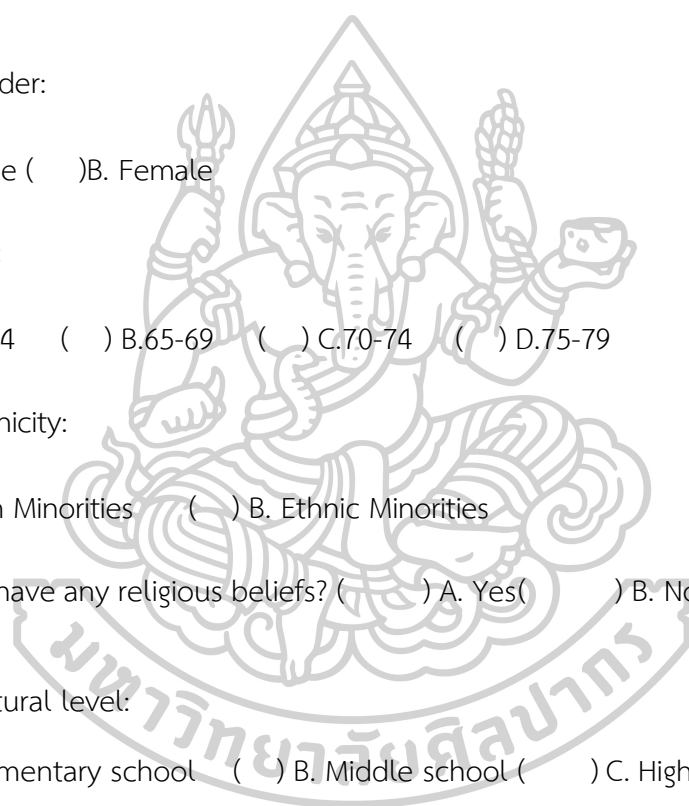
E. Illiteracy

6. Your marital status:

A. Married B. Unmarried

7. Your number of children:

A. 1 B. 2 C. 3 and above D. No children



8.The nature of your household:

A. Urban household registration B. Rural household registration

9.Your job type:

A. Civil servant B. Enterprise personnel C. Self-employed
personnel () D. Migrant workers () E. Farmer

10.Your main source of finance:

A. Pension B. Savings C. Children's allowance
 D. Financial support from relatives and friends E. Other

11.Your main source of medical expenses:

A. National Health Insurance () B. Savings () C. Children's
allowance

D. Financial support from relatives and friends () E. Others

12.The nature of your living house:

A. Owned housing B. Housing belonging to your children
 C. Rented housing D. Living in a nursing facility

II Depressive symptoms situation:

13. Your evaluation of your own health condition:

A. Good B. General C. Not so good D. Very bad

14. Your evaluation of your own nutritional status:

A. Good B. General C. Not so good D. Very bad

15. Your evaluation of your own sleep condition:

A. Good B. General C. Not so good D. Very bad

16. The degree of your depressive symptoms:

A. Severe B. Moderate C. Mild D. No feeling

17. Your depressive symptoms mainly stem from:

A. Financial reasons B. Family reasons C. Physical illness reasons

D. Other

18. The methods you used to improve your depressive symptoms during the three months:

A. Taking medication B. Psychotherapy C. Counseling

D. Recreational sports E. No methods were used

III Recreational sports:**(Questions About: Awareness of recreational Sports)**

19. How well do you know the contents of recreational sports?

- A. Know it very well B. Know it C. Know it generally
 D. Don't know it at all

20. How much do you know about recreational sports programs?

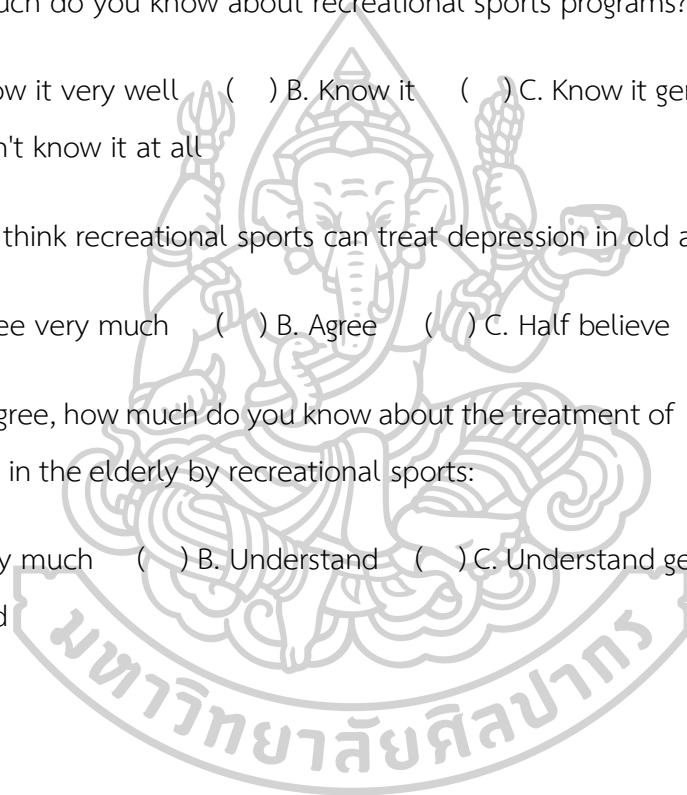
- A. Know it very well B. Know it C. Know it generally
 D. Don't know it at all

21. Do you think recreational sports can treat depression in old age?

- A. Agree very much B. Agree C. Half believe D. Don't agree

22. If you agree, how much do you know about the treatment of depression in the elderly by recreational sports:

- A. Very much B. Understand C. Understand generally D. Don't understand



(Questions about: time aspects of recreational sports)

23. How much recreational time do you have on average every day?

- A. Less than 1 hour B. 1-2 hours C. 2-3 hours
 D. More than 3 hours

24. On average, how much time do you have for recreational sports every day?

- A. Less than 1 hour B. 1-2 hours C. 2-3 hours
 D. More than 3 hours

25. The time period during which you can participate in recreational sports:
(multiple choices allowed)

- A. Morning B. Afternoon C. Evening D. Other times

26. The time period you prefer to participate in recreational sports: (Multiple
choices allowed)

- A. Morning B. Afternoon C. Evening D. Other times

27. On average, how many days a week can you participate in recreational sports: (

- A. 1-2 days B. 3-4 days C. 5-6 days D. 7 Days

(Questions about: Content aspects of recreational sports)

28. Please draw a sequential number for the recreational sports that you think are
beneficial to participate in the treatment of geriatric depression: (use 1, 2... numbers
starting from the most favorable and decreasing in order)

- A. Chorus
 B. Musical Instrument Playing
 C. Chinese Calligraphy and Painting D. Playing Chess
 E. Making Handicrafts F. Indoor Fitness

G. Yoga for the Elderly

H. Playing Table Tennis

I. Taking a Walk

J. Jogging

K. Playing Taijiquan L. Qigong

M. Gymnastics

N. Sword Practice O. Square Dancing

29. The reasons why you like the recreational sports you participate in are: (Multiple choices allowed)

A. The movements are simple and easy to learn B. Economical

C. Following friends' choices D. Nearby sports venues

30. What recreational sport do you think is more conducive to the treatment of depression in old age when you participate in? (Multiple choices allowed)

A. Chorus B. Musical Instrument Playing

C. Chinese Calligraphy and Painting D. Playing Chess

E. Making Handicrafts F. Indoor Fitness

G. Yoga for the Elderly H. Playing Table Tennis I. Taking a Walk

J. Jogging

K. Playing Taijiquan L. Qigong

M. Gymnastics

N. Sword Practice O. Square Dancing

(Questions about: strategy development for treating depression in older adults through participation in recreational sports)

31. The number of days per week you would recommend treating depression through participation in recreational sports are:

- A. 1-2 days B. 3-4 days C. 5-6 days D. 7 days

32. The amount of time per day that you would recommend treating depression by participating in recreational sports is:

- A. Less than 1 hour B. 1-2 hours C. 2-3 hours
 D. More than 3 hours

33. The area you suggest needs improvement in developing strategies for treating depression through participation in recreational sports is: (Multiple choice)

- A. Requirements for sports venues B. Requirements for instructors
 C. Requirements for improvement of sports programs
 D. Requirements for government funding subsidies

34. The aspects of the requirements for sports venues that you suggest need to be improved in developing strategies are: (Multiple choices allowed)

- A. Requirements on the size of sports venues
 B. Requirements on the ease of transportation to sports venues
 C. Requirements for safety at sports venues
 D. Requirements for facilities at sports venues

35. The aspects of the requirements for instructors that you suggest need to be improved in developing strategies are:

(Multiple choices allowed)

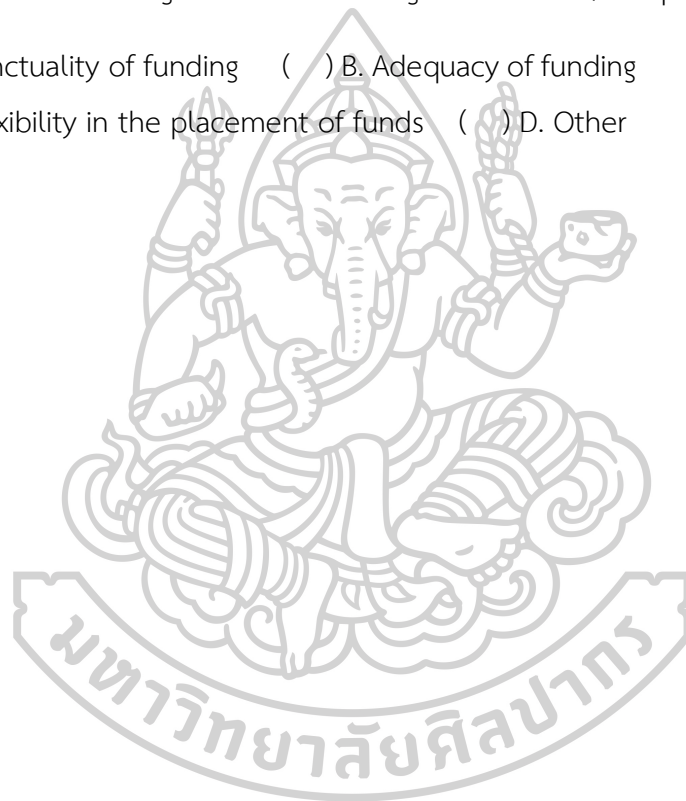
- A. Requirements on professionalism
 B. Requirements on patience
 C. Requirements on sufficient time
 D. Requirements on being able to adjust patients' emotions

36. What would you suggest as an area for improvement in the development of strategies for the requirements of exercise programs?

- A. Variety of exercise programs B. Fun
- C. Interaction between patients D. Innovation
- E. Easy to operate sports programs

37. The area you suggest needs to be improved in the development of strategies for the requirement of government funding subsidies is: (Multiple choice allowed)

- A. Punctuality of funding B. Adequacy of funding
- C. Flexibility in the placement of funds D. Other



(2) Interviews:

1) Appendix 10

The Interview for The Specialists' Opinions and Suggestions (11 People)

In order to better develop Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong, the Interview for the Specialists' Opinions and Suggestions was designed. It consists of two main sections:

Part 1 General information about the respondent (Remarks: please mark the options “√” that correspond to reality)

Respondent's status:

- () Sports rehabilitation physician () Psychiatrist
- () Chinese medicine practitioner
- () Community Health General Practitioner
- () Staff of elderly associations
- () Staff of elderly welfare departments
- () Staff of community administration departments
- () Staff of sports associations
- () CEOs of elderly

Enterprises

() Exercise instructors

() Family members of elderly depression patients

Part 2 Expert advice, recommendations for strategy development and dissemination



2) Appendix 11

The Interview for SWOT analysis of the strategic environment (11 People)

In order to better develop Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong, the Interview for SWOT analysis of the strategic environment (11 People) was designed. It consists of two main sections:

Part 1 General information about the respondent (Remarks: please mark the options “√” that correspond to reality)

Respondent's status:

- Sports rehabilitation physician
- Psychiatrist
- Chinese medicine practitioner
- Community Health General Practitioner
- Staff of elderly associations
- Staff of elderly welfare departments
- Staff of community administration departments
- Staff of sports associations
- CEOs of elderly enterprises
- Exercise instructors
- Family members of elderly depression patients

Part 2: Comments on “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”

Strengths, Weaknesses, Opportunities and Threats of the Environment

Question: Do you have any comments on the strengths, weaknesses, opportunities and Threats of the environment of “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”?

1. Financial subsidies:

Strengths (S): _____

Weaknesses (W): _____

Opportunities (O): _____

Threats (T): _____

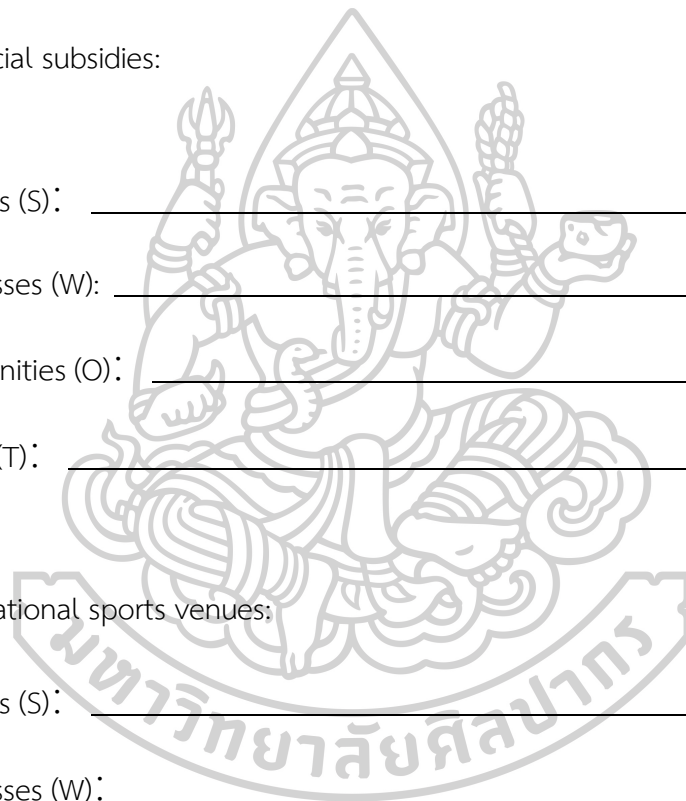
2. Recreational sports venues:

Strengths (S): _____

Weaknesses (W): _____

Opportunities (O): _____

Threats (T): _____



3. Recreational sports instructors:

Strengths (S): _____

Weaknesses (W): _____

Opportunities (O): _____

Threats (T): _____

4. Recreational sports programs:

Strengths (S): _____

Weaknesses (W): _____

Opportunities (O): _____

Threats (T): _____

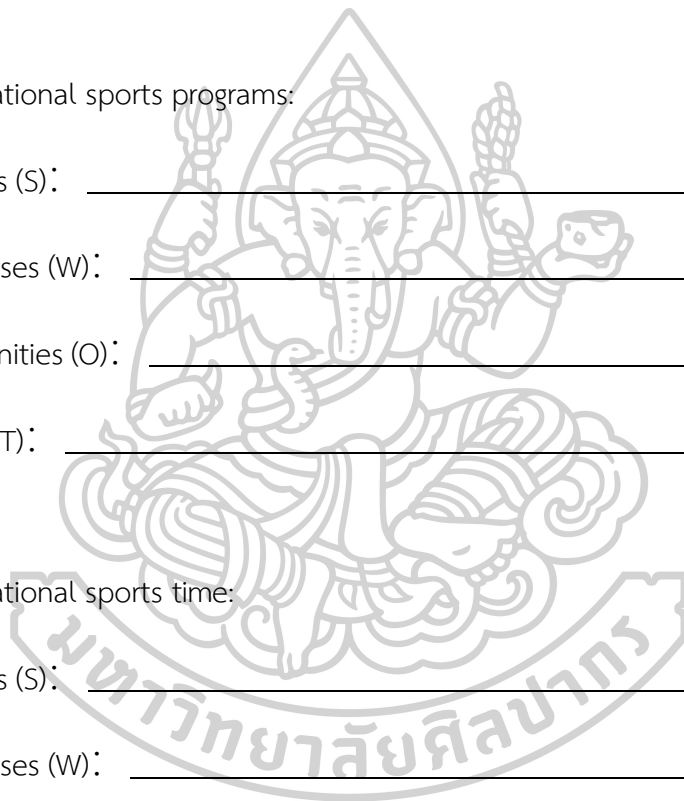
5. Recreational sports time:

Strengths (S): _____

Weaknesses (W): _____

Opportunities (O): _____

Threats (T): _____



3) Appendix 12

Expert assessment of SWOT analysis of the strategic environment (IOC)
 (Recreational Sports Strategies for the Depression Problems of Elderly in
 Guangdong) Strengths, Weaknesses, Opportunities, and Threats (SWOT) to
 Strategic Management Opinion Interviews

IOC Expert Validity Checklist

Evaluation list		Experts			total	IOC 值
		Xiao	Qiu	Fang		
Part 1 General information about the respondent						
1	Respondent's status					
(1)	Sports rehabilitation physician	+1	+1	+1	3	1.00
(2)	Psychiatrist	+1	+1	+1	3	1.00
(3)	Chinese medicine practitioner	+1	+1	+1	3	1.00
(4)	Community Health General Practitioner	+1	+1	+1	3	1.00
(5)	Staff of elderly associations	+1	+1	+1	3	1.00
(6)	Staff of elderly welfare departments	+1	+1	+1	3	1.00
(7)	Staff of community administration departments	+1	+1	+1	3	1.00
(8)	Staff of sports associations	+1	+1	+1	3	1.00
(9)	CEOs of elderly enterprises	+1	+1	+1	3	1.00
(10)	Exercise instructors	+1	+1	+1	3	1.00

(11)	Family members of elderly depression patients	+1	+1	+1	3	1.00
Part 2: Comments on “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” Strengths, Weaknesses, Opportunities and Threats of the Environment						
1	Financial Subsidies					
	Strengths (S):	+1	+1	+1	3	1.00
	Weaknesses (W):	+1	+1	+1	3	1.00
	Opportunities (O):	+1	+1	+1	3	1.00
	Threats (T):	+1	+1	+1	3	1.00
2	Recreational Sports Grounds					
	Strengths (S):	+1	+1	+1	3	1.00
	Weaknesses (W):	+1	+1	0	2	0.67
	Opportunities (O):	+1	+1	+1	3	1.00
	Threats (T):	+1	+1	+1	3	1.00
3	Recreational Sports Instructors					
	Strengths (S):	+1	+1	+1	3	1.00
	Weaknesses (W):	+1	+1	+1	3	1.00
	Opportunities (O):	+1	+1	+1	3	1.00
	Threats (T):	+1	+1	+1	3	1.00
4	Recreational Sports Projects					
	Strengths (S):	+1	0	+1	2	0.67
	Weaknesses (W):	+1	+1	+1	3	1.00
	Opportunities (O):	+1	+1	+1	3	1.00
	Threats (T):	0	+1	+1	2	0.67

5	Time for Recreational Sports					
	Strengths (S):	+1	+1	+1	3	1.00
	Weaknesses (W):	+1	+1	+1	3	1.00
	Opportunities (O):	+1	+1	+1	3	1.00
	Threats (T):	+1	+1	+1	3	1.00
Part 3 Expert advice, recommendations for strategy development and dissemination						
1	Expert advice, recommendations	+1	+1	+1	3	1.00
	Mean (IOC)	0.97				

(In summary, an IOC value between 0.67 and 1.00 for each project, with calculated values greater than 0.5, is considered a valid analysis.)



4) Appendix 13

**Interviews for comments on the draft strategy from Connoisseurship 9
People**

In order to better validate draft Strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” by connoisseurship, the draft was reviewed and recommended using expert workshops. It consists of two main sections:

Part 1 General information about the respondent (Remarks: please mark the options “v” that correspond to reality)

Respondent's status:

- Sports rehabilitation physician
- Psychiatrist
- Chinese medicine practitioner
- Community Health General Practitioner
- Staff of elderly associations
- Staff of elderly welfare departments
- Staff of community administration departments
- Staff of sports associations
- CEOs of elderly enterprises

Part 2 Draft Considerations and Recommendations

**Recreational Sports Strategies for the Depression Problems of
Elderly in Guangdong Draft Considerations and Recommendations**

<p>Strategies: "Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong"</p>	<p>Comments and recommendations</p>
<p>Vision:</p> <p>To improve the symptoms of depression in the elderly with scientific strategies of Recreational and sports, which improves the physical and mental health, quality of life and other aspects of the elderly, as well as their sense of well-being in life.</p>	
<p>Mission:</p> <ol style="list-style-type: none"> 1. To establish a financial subsidy system based on multi-sectoral cooperation by the government, and to raise funds from various social organizations as a supplementary way of financial security. 2. To do a good job of maintaining, renovating, upgrading and building Recreational and sports 	

venues, so as to make a good foundation for venues to reduce the symptoms of elderly depression patients.

3. To cultivate, allocate and appoint sports instructors who specialize in Recreational sports for elderly patients with depression in a long-term and targeted manner, so as to achieve the purpose of improving the symptoms of depression in elderly patients with depression in a more scientific and targeted manner.

4. Do a good job in the inheritance and innovation of Recreational sports programs, both in line with the needs of the elderly patients with depression in their own physical conditions, but also to make them physically and mentally pleasurable sports activity programs.

5. Scientifically and reasonably arrange the Recreational sports time of elderly patients with depression to achieve

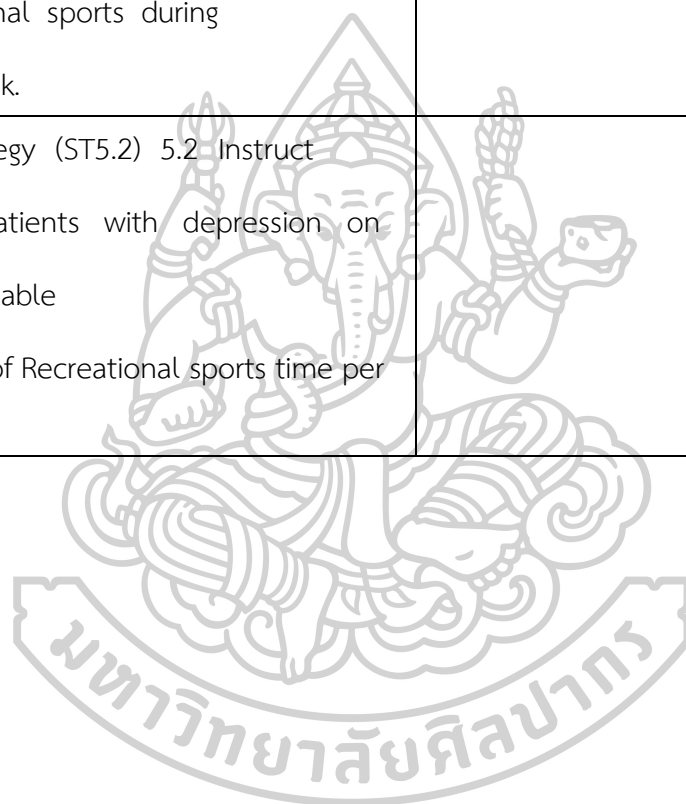
<p>the purpose of improving symptoms.</p>	
<p>Strategy 1: Financial Subsidies Strategy 2: Recreational Sports Venues Strategy 3: Recreational Sports Instructors Strategy 4: Recreational Sports Programs Strategy 5: Recreational Sport Time</p>	
<p>Strategy 1: Establish a subsidy method that combines multiple sources of funding by multiple payers.</p>	
<p>Sub-strategy (SO1.1) 1.1 Establish a funding subsidy system that consists of multiple government departments working together.</p>	
<p>Sub-strategy (WO1.1) 1.2 Fund-raising approach by various social organizations to assist in raising funds for Recreational and sports activities for the elderly with depression.</p>	
<p>Sub-strategy (WT1.1) 1.3 Charge an activity fee for each elderly patient who engages in recreational sports.</p>	

<p>Strategy 2: Do a good job of maintaining, renovating, upgrading, and constructing Recreational and sports venues.</p>	
<p>Sub-Strategy (WO2.1)</p> <p>2.1 Appropriate renovation of existing parks and civic activity squares.</p>	
<p>Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.</p>	
<p>Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.</p>	

<p>Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.</p>	
<p>Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.</p>	
<p>Sub-Strategy (WO2.2) 2.6-N</p>	
<p>Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for older adults with depression.</p>	
<p>Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for older adults with depression.</p>	
<p>Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to instruct elderly depressed patients in Recreational sports.</p>	
<p>Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors specializing in recreational sports for elderly depressed patients.</p>	

Strategy 4: Promote the heritage and innovation of recreational sports programs.	
Sub-strategy (WO4.1) 4.1 Select	
Recreational sports programs that are popular, reasonable, targeted and with national characteristics.	
Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depression patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.	
Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs with age group as the differentiating factor in order to alleviate the symptoms of Elderly depression.	

<p>Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for older adults with depression.</p>	
<p>Sub-strategy (ST5.1) 5.1 Instruct older patients with depression on the number of times they should engage in recreational sports during each week.</p>	
<p>Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.</p>	



(3) Evaluation of feasibilities

1) Appendix 14

The Evaluate Feasibilities of Strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” by Interview 12 Stakeholders.

In order to better evaluation of feasibilities about Strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong” by Interview 12 Stakeholders. It consists of two main sections:

Part 1 Recommendations from Connoisseurship 9 People.

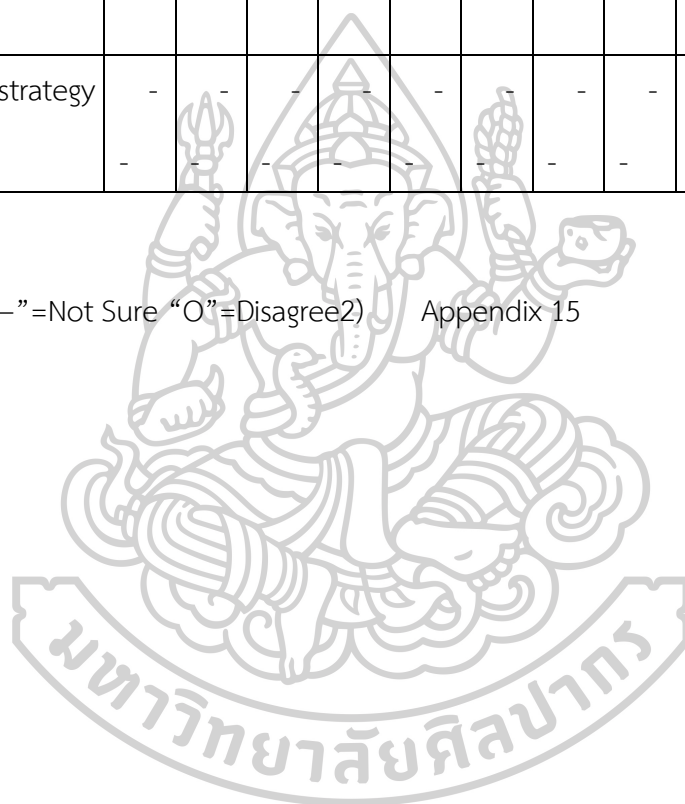
Specialists from different fields were also used to analyze and evaluate the environment of the strategies, including:

- (1) Sports rehabilitation physician
- (2) Psychiatrist
- (3) Chinese medicine practitioner
- (4) Community Health General Practitioner
- (5) Staff of elderly associations
- (6) Staff of elderly welfare departments
- (7) Staff of community administration departments
- (8) Staff of sports associations
- (9) CEO of elderly enterprises
- (10) Exercise instructors
- (11) Family members of elderly depression patients
- (12) Professor, Faculty of Social Sciences

NO.	Content	Stakeholders												Total	
		1	2	3	4	5	6	7	8	9	10	11	12		
26	Sub-strategy (ST5.3) 5.3	√	√	√	√	√	√	√	√	√	√	√	√	√	12
27	Sub-strategy (ST5.4) 5.4	√	—	√	√	√	√	√	√	√	√	√	√	○	10
28	general strategy	-	-	-	-	-	-	-	-	-	-	-	-	-	--

Explain:

“√”=Agree “—”=Not Sure “○”=Disagree2) Appendix 15



Evaluate the feasibility by questionnaire 14 people.

In order to better develop Strategies “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”, after completing the draft of “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”. specialists from relevant different fields evaluate the feasibility of the draft strategy, which included:

Part 1 Evaluate the feasibility by questionnaire 14 people.

Specialists from relevant different fields evaluate the feasibility of the draft strategy, which included:

- (1) Sports rehabilitation physician
- (2) Psychiatrist-1
- (3) Psychiatrist-2
- (4) Psychiatrist-3
- (5) Chinese medicine practitioner
- (6) Community health general practitioner
- (7) Staff of elderly associations
- (8) Staff of elderly welfare departments
- (9) Staff of community administration departments
- (10) Staff of sports associations
- (11) CEOs of elderly enterprises
- (12) Exercise instructors
- (13) Family members of elderly depression patients
- (14) University professor

Part 2 Recreational Sports Strategies for the Depression Problems of Elderly in

Guangdong draft Feasibility Assessment

Content	Mean (\bar{X})	(Statistics) Standard Deviation $(S.D.)$	Feasibility Level
Vision: To improve the symptoms of depression in the elderly with scientific recreational sports strategies, which improves the physical and mental health, quality of life, and other aspects of the elderly, and also enhances their sense of well-being in life.	4.57	0.49	the highest level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
<p>Mission:</p> <ol style="list-style-type: none"> 1. To establish a financial subsidy system based on multi-sectoral cooperation by the government, and to raise funds from various social groups as an auxiliary way of financial security. 2. To do a good job of maintaining, renovating, upgrading and building Recreational and sports venues, so as to make a good foundation of venues for reducing the symptoms of elderly patients with depression. 3. To cultivate, allocate and appoint sports instructors who specialize in Recreational 	4.29	0.45	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
<p>sports for elderly patients with depression in a long-term and targeted manner, so as to achieve the purpose of improving the symptoms of depression in elderly patients with depression in a more scientific and targeted manner.</p> <p>4. Do a good job in the inheritance and innovation of Recreational sports programs, both in line with the needs of the elderly patients with depression in their own physical conditions, but also to make them physically and mentally pleasurable sports activity programs.</p> <p>5. Scientifically and reasonably arrange the</p>			

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Recreational sports time for the elderly patients with depression in order to achieve the purpose of improving the symptoms.			
Strategy:			
<p>Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.</p> <p>Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.</p> <p>Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for older adults with depression.</p> <p>Strategy 4: Promote the heritage and innovation of</p>	4.36	0.48	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
recreational sports programs. Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for older adults with depression.			
Strategy:			
Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.			
Strategy 1: Establishment of a subsidy system that combines multiple sources of funding by multiple payers.	4.32	0.47	high level
Sub-strategy (SO1.1) 1.1 Establish a system of subsidizing funds by multiple government departments working together.	4.21	0.41	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Sub-strategy (WO1.1) 1.2 Fund-raising by various social organizations to assist in raising funds for recreational and sports activities for the elderly with depression.	4.43	0.49	high level
Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.			
Strategy 2: Maintain, renovate, upgrade, and construct recreational and sports venues properly.	4.43	0.49	high level
Sub-Strategy (WO2.1) 2.1 Appropriately renovate existing parks and civic activity plazas.	4.36	0.48	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Sub-strategy (WT2.1) 2.2 Give due consideration to the need for the use of recreational sports for the elderly when subdividing the areas for active people in public sports venues.	4.07	0.26	high level
Sub-strategy (SO2.1) 2.3 Enhance the planning and design of greenways for fitness walks to increase recreational and sports venues for the elderly.	4.79	0.41	the highest level
Sub-strategy (ST2.1) 2.4 Rationalize the planning of recreational and sports venues and facilities for the elderly in communities and village councils.	4.29	0.45	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Sub-strategy (SO2.2) 2.5 Do the design of recreational and sports places for the elderly inside the nursing home.	4.71	0.45	the highest level
Sub-Strategy (WO2.2) 2.6 Fully utilize fee-for-service stadiums and unit sports venues for recreational sports for the elderly.	4.36	0.48	high level
Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for older adults with depression.			
Strategy 3: Train, assign, and hire physical education instructors who specialize in recreational sports for older adults with depression.	4.36	0.48	high level
Sub-Strategy (SO3.1) 3.1 Train physical education instructors who specialize in recreational sports for older adults with depression.	4.29	0.45	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Sub-strategy (WT3.1) 3.2 Assign Specialist instructors to guide elderly depressed patients in Recreational sports.	4.57	0.49	the highest level
Sub-strategy (WO3.1) 3.3 Appointment of physical education instructors who specialize in recreational sports for elderly depressed patients.	4.21	0.41	high level
Strategy 4: Promote the heritage and innovation of recreational sports programs.			
Strategy 4: Promote the heritage and innovation of recreational sports programs.	4.60	0.49	the highest level
Sub-strategy (WO4.1) 4.1 Select Recreational sports programs that are popular, reasonable, targeted, and have national characteristics.	4.50	0.50	the highest level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Sub-strategy (ST4.1) 4.2 Using male and female gender as the differentiating factors, according to the preference level of the elderly depressed patient group for different Recreational sports, rationally design the strategy about the Recreational sports program for the purpose of reducing the symptoms of depression in the elderly.	4.86	0.35	the highest level
Sub-strategy (ST4.2) 4.3 Precisely design the strategy about Recreational sports and exercise programs to alleviate the symptoms of Elderly depression by taking the age group as the differentiating factor.	4.43	0.49	high level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for older adults with depression.			
Strategy 5: Scientifically and rationally develop Recreational-time physical activity schedules for older adults with depression.	4.70	0.46	the highest level
Sub-strategy (ST5.1) 5.1 Instruct elderly depressed patients on the number of times they should engage in Recreational sports in each week.	4.79	0.41	the highest level
Sub-strategy (ST5.2) 5.2 Instruct elderly patients with depression on a reasonable amount of Recreational sports time per day.	4.79	0.41	the highest level

Content	Mean (\bar{X})	(Statistics) Standard Deviation (S.D.)	Feasibility Level
Sub-strategy (ST5.3) 5.3 Number of days per treatment session in which older patients with depression are instructed to engage in recreational physical activity.	4.79	0.41	the highest level
Sub-Strategy (ST5.4) 5.4 Instruct elderly depressed patients on the dynamic and static times of Recreational sports.	4.43	0.49	high level



3) Appendix 16

Strategy Feasibility Assessment Quantitative

NO.	Content	Total	Mean $\overline{(X)}$	(Statistics) Standard Deviation (S.D)	Feasibility Level
1	vision	64	4.57	0.49	the highest level
2	Mission	60	4.29	0.45	high level
3	Strategy	61	4.36	0.48	high level
4	Strategy 1		4.32	0.47	high level
5	Sub-strategy (SO1.1) 1.1	59	4.21	0.41	high level
6	Sub-strategy (WO1.2) 1.2	62	4.43	0.49	high level
7	Strategy 2		4.43	0.49	high level)
8	Sub- Strategy(WO2.1) 2.1	61	4.36	0.48	high level
9	Sub-strategy (WT2.1) 2.2	57	4.07	0.26	high level
10	Sub-strategy (SO2.1) 2.3	67	4.79	0.41	the highest level
11	Sub-strategy (ST2.1) 2.4	60	4.29	0.45	high level
12	Sub-strategy (SO2.2) 2.5	66	4.71	0.45	the highest level
13	Sub-Strategy (WO2.2) 2.6	61	4.36	0.48	high level
14	Strategy 3		4.36	0.48	high level
15	Sub-Strategy (SO3.1) 3.1	60	4.29	0.45	high level
16	Sub-strategy (WT3.1) 3.2	64	4.57	0.49	the highest level

NO.	Content	Total	Mean $\overline{(X)}$	(Statistics) Standard Deviation (S.D)	Feasibility Level
17	Sub-strategy (WO3.1) 3.3	59	4.21	0.41	high level
18	Strategy 4		4.60	0.49	the highest level
19	Sub-strategy (WO4.1) 4.1	63	4.50	0.50	the highest level
20	Sub-strategy (ST4.1) 4.2	68	4.86	0.35	the highest level
21	Sub-strategy (ST4.2) 4.3	62	4.43	0.49	high level
22	Strategy 5		4.70	0.46	the highest level
23	Sub-strategy (ST5.1) 5.1	67	4.79	0.41	the highest level
24	Sub-strategy (ST5.2) 5.2	67	4.79	0.41	the highest level
25	Sub-strategy (ST5.3) 5.3	67	4.79	0.41	the highest level
26	Sub-strategy (ST5.4) 5.4	62	4.43	0.49	high level
27	general strategy	1317	4.48	0.50	high level



(1) IOC 3 Experts



No. 1808

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 11, 2024

Title: Invitation to be an inspector of research tool quality

Dear Professor Xiao Jingsong,

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. In this regard, Faculty of Education, Silpakorn University would like to invite you to inspect the quality of research tools for the student.

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink that reads 'Siriwan V.'

Asst. Prof. Dr. Siriwan Vanichwatanavorachai
Deputy Dean for Academic Affairs

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 1809

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 11, 2024

Title: Invitation to be an inspector of research tool quality

Dear Associate Professor Qiu Fubing,

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. In this regard, Faculty of Education, Silpakorn University would like to invite you to inspect the quality of research tools for the student.

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink that reads 'Siriwan V'.

Asst. Prof. Dr. Siriwon Vanichwatanavorachai
Deputy Dean for Academic Affairs

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 1807

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 11, 2024

Title: Invitation to be an inspector of research tool quality

Dear Associate Professor Fang Yaming,

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. In this regard, Faculty of Education, Silpakorn University would like to invite you to inspect the quality of research tools for the student.

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink that reads "Sirivan V."

Asst. Prof. Dr. Sirivan Vanichwatanavorachai
Deputy Dean for Academic Affairs

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095

(2) Connoisseurship 9 Experts



No. 8612/21A9

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 17, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Tian Yajuan, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Kanit'.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 8612/21A2

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 17, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Huang Yongqiang, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Kanit'.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 2141

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 17, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Li Qiyan, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Kanit'.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 8612/2141

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 17, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Associate Professor Zhang Rihua, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Kanit'.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 8612/2140

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 17, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Li Qiuliang, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Kanit'.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 8612/2138

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 17, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Associate Professor Wei Kang, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'kanit'.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 8612/2135

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 17, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Associate Professor Luo Weixiong, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Kanit', next to a grey rectangular stamp.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 8612/2196

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 17, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Associate Professor Zhang Meiqing, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Kanit', next to a grey bracket-like graphic element.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



No. 8612/213A

Faculty of Education, Silpakorn University
Sanamchandra Palace Campus,
Nakhon Pathom 73000, Thailand

April 7, 2025

Title: Invitation to Attend the Expert Reference Seminar on Connoisseurship

Dear Associate Professor Tao Ping, Ph.D.

Miss Dongling Chen is a graduate student ID 640630091 at Silpakorn University and is studying for Doctor of Philosophy Program in Recreation Tourism and Sport Management at Faculty of Education, Silpakorn University. Currently, she is conducting her Independent study entitled: Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong. would like to invite you to join the expert reference seminar (Connoisseurship) to support the dissertation process

Your kind assistance and academic contribution is much appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Kanit Kheovichai'.

Prof. Dr. Kanit Kheovichai
Dean of Faculty of Education

Faculty of Education, Silpakorn University
Nakhon Pathom, Office Tel. 034-255-095



3. Photos of research data collection

3. Photos

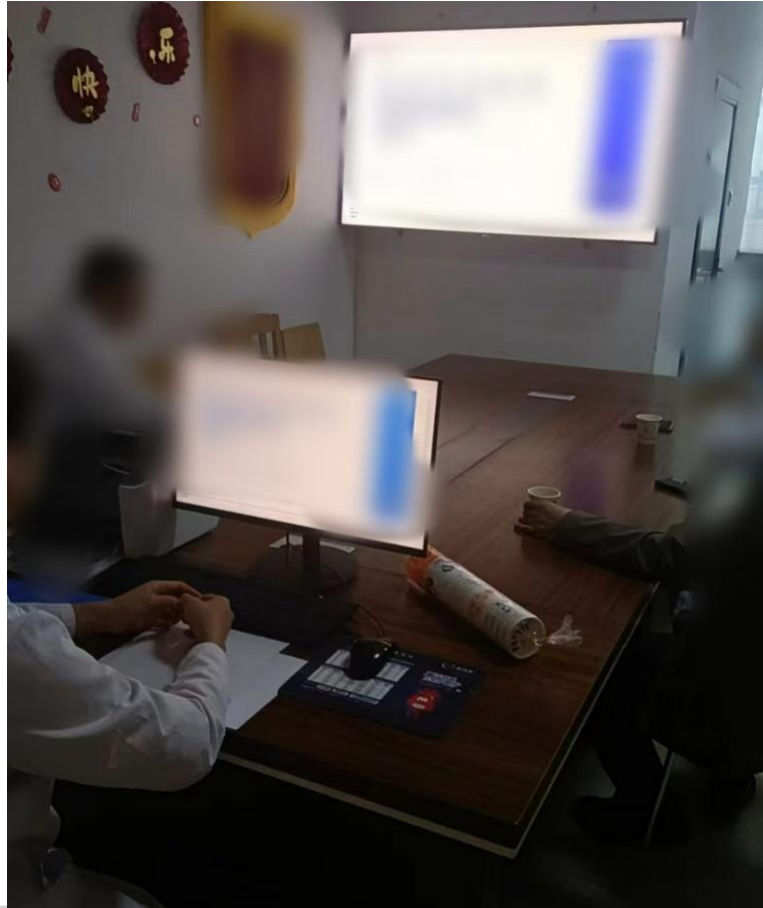
1) Photos about the questionnaire for the elderly depression



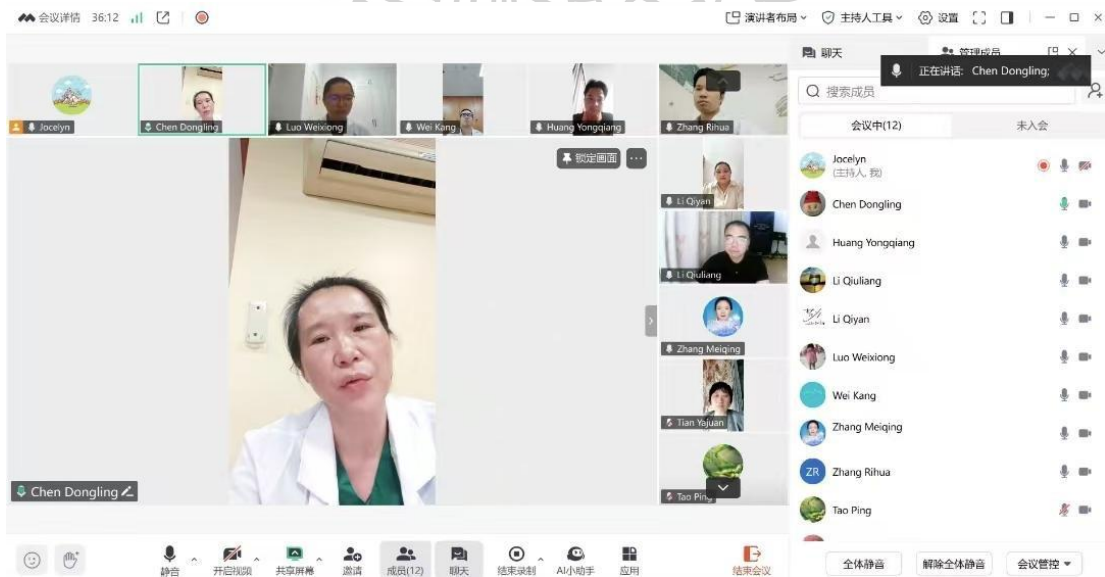
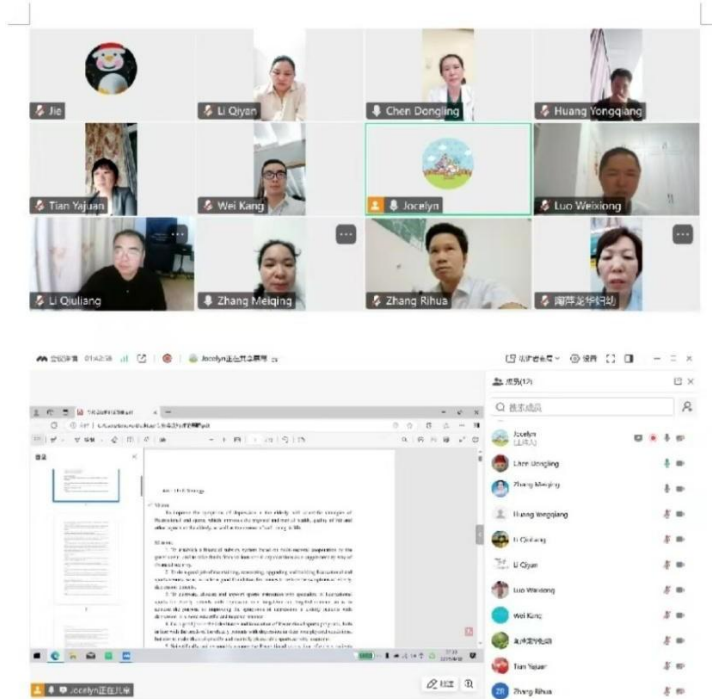
2) Photos about the Interview for making strategy (11 People)



3) Interview for feasibilities strategy (12 People)



4) Pictures about the Connoisseurship 9 experts





The Schedule of Connoisseurship (9 Experts) for “Recreational Sports Strategies for the Depression Problems of Elderly in Guangdong”

Draft Considerations and Recommendations was held:

2025.04.18, Friday, 18:30—21:30, Online

Recreational Sports Strategies for the Depression Problems Of Elderly in Guangdong
(Experts)

No.	Name	Unit	Position	Education Attainment
1	Tao Ping	Longhua Maternal and Child Health Hospital, Shenzhen, Guangdong Province (Assistant Director of Geriatric Psychiatry)	Associate Chief Physician	PhD
2	Luo Weixiong	The Second People's Hospital of Shenzhen, Guangdong Province (Assistant Director, Sports Rehabilitation Department)	Associate Chief Physician	PhD

No.	Name	Unit	Position	Education Attainment
3	Zhang Meiqing	Shenzhen Pure Chinese Medicine Hospital, Guangdong Province (Assistant Director of Geriatrics)	Associate Chief Physician	PhD
4	Wei Kang	Taoyuan Community Health Shenzhen Nanshan District Medical Group, Guangdong Province (Assistant Director of Geriatrics)	Associate Chief Physician	PhD
5	Li Qiuliang	Maoming Sports Association of Guangdong Province (Director of the Elderly Sports Department)	Director	PhD
6	Zhang Rihua	Maoming Elderly Association of Guangdong Province (Vice President)	Associate Professor	PhD
7	Li Qiyao	Qianpai Community, Maoming City, Guangdong Province (Director)	Director	PhD

No.	Name	Unit	Position	Education Attainment
8	Huang Yongqiang	Elderly Welfare Office, Qianpai Town, Maoming City, Guangdong Province (Assistant Director)	Assistant Director	PhD
9	Tian Yajuan	Taikang Pension Center of Guangdong Province (Head)	CEO	PhD



VITA

NAME Chen Dongling

INSTITUTIONS ATTENDED University, 2002.
Bachelor's degree in Clinical Medicine, University of South
China, 2008.
Master's degree in Software Engineering (Medical
Direction), Wuhan University, 2013.

