GRAPHIC DESIGN COMMUNICATION FOR THE PSYCHIATRIC DISORDER DEPRESSION- SMILE DEPRESSION

BY

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Abstract

Depression is a common psychological disorder. With the continuous progress and rapid development of the global society, people are under more and more pressure in their daily life, work and study, and the prevalence of depression worldwide is increasing year by year. In recent years, a relatively new type of depression has emerged-smiling depression. Most people with smiling depression often smile in a crowd and look no different than normal, but in reality, it is not really a smile that expresses the heart of the soul. People have a lot of problems in the face of depression and do not know about depression and do not really understand it, and there is a great lack of care for people with depression. When people experience depression in their lives, they do not know what to do, and they are unable to provide positive, proper and timely care. The goal of this study is to raise awareness of depression through art forms and visual graphic design to inspire people to care for depression

(Total 63 pages)

Keywords: Depression, Mental Health, Visual Graphic Design, Smile Depression

Student's Signature..... Thesis Advisor's Signature.....

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Chapter 1

Introduction

1.1 Background and Significance of the Problem

Depression, also known as depressive disorder, is a mental illness characterized by a significant and persistent low mood and is the main type of mental disorder. It has emerged as a major threat to global public health. According to the World Health Organization (WHO), approximately 350 million people worldwide suffer from depression. In 2019, the burden of disease due to depression ranked 13th among all diseases and first among mental disorders (World Health Organization, 2020). Moreover, recent studies have shown a 25% increase in the global incidence of anxiety and depression during the initial year of the COVID-19 pandemic.

Depression exerts numerous harmful effects on individuals, severely impacting their daily lives, work, and studies. Furthermore, it not only affects the mental and physical health of the individuals but also places significant strain on families and society as a whole. Severe cases of depression may escalate to self-harming or suicidal behavior, elevating the risk of suicide. Surveys indicate that at least half of the world's population experiences some form of depressive symptoms during their lifetime. It is projected that by 2030, depression will become the second leading cause of disease and disability worldwide, potentially doubling the global economic burden attributed to depression.The 2022 National Blue Book on Depression revealed that 50% of depression sufferers are schoolchildren, while 30% are staff members, with women being twice as likely as men to experience depression. Moreover, depression has shown a concerning trend of affecting individuals at increasingly younger ages, with more students exhibiting signs of depression for various reasons.1)Academic pressure

The rising expectations in education coupled with extracurricular demands create significant psychological burdens on students, potentially leading to depression and related issues such as anorexia nervosa.2)Strict parenting:Overly strict parenting styles contribute to a depressive atmosphere for children, hindering communication and fostering feelings of isolation.3)Interpersonal tension weak interpersonal skills or conflicts with peers can lead to academic difficulties and the development of an inferiority complex. 4)Unharmonious family atmosphere Exposure to familial discord and conflict can cause psychological trauma in children, predisposing them to depression.5.Internet influence:Excessive exposure to online platforms can exacerbate feelings of pessimism and depression among adolescents.

One of the primary contributors to depression among females is genetic predisposition, with certain genetic mutations being more prevalent in women. Physiological factors such as menstruation and pregnancy also play significant roles, with hormonal fluctuations and postpartum experiences contributing to depressive symptoms. Additionally, societal pressures, including workplace discrimination and gender-based harassment, disproportionately affect women, contributing to higher rates of depression.

In recent years, "smiling depression" has reappeared in the public eye, many people are not clear what is "smiling depression", according to research in recent years, "smiling depression" is a kind of depression that is rapidly emerging, "smiling depression" occurs mostly in the urban white-collar workers, the service industry and teenage students, is a new kind of depressive tendencies. According to research in recent years, this "smile" is not a true feeling from deep inside, and is a burden, which in turn becomes low mood." Habitual smiling expressions "can't eliminate the worries caused by work, life and other aspects of stress, but only make them more and more painful." Smile depression "will not only lead to mental illness, but also may cause physical and mental illness. If not guided in time, it will also develop into a serious "depression", and even lead to psychological distortions or changes, causing endocrine disorders, which in turn lead to a variety of physiological problems. It may even lead to psychological distortions or changes, causing endocrine disorders which in turn lead

to various physiological problems. This kind of patients usually have suicidal tendency, but when they finally decide to commit suicide, they will put on a touching smile because they feel "hopeful" and "relieved".

"Smiling depression" is actually a non-clinical term that describes a state of illness that is different from the popular stereotype of some depressed people. These patients are accustomed to smiling or being optimistic in social situations or in public, while feeling depressed, hopeless and helpless. This state is often misunderstood or ignored by others because they seem to have "two faces", smiling on the outside and crying on the inside. Smiling depression is more common and easier to ignore. Because their internal and external expressions of emotion are not consistent, it is difficult to detect, which may exacerbate their loneliness and helplessness.

1.2 Research Objectives

The purpose of this study was to examine whether the use of visual graphic communication can make viewers aware of depression. Specifically, this study will investigate:

1.2.1 what kind of graphic design can be used to shape people's perceptions of depression

1.2.2 Whether the use of visual graphic design can increase awareness of depression and motivate people to care for depression

1.3 Research Questions

I recalled a sample of 70 questionnaires from outside and the results showed that most people don't understand what smile depression is, and more than half have underlying yi yu z and don't know it!

Coco Lee, a Chinese singer, and Ko, a famous Thai DJ, both ended their lives at home because of "smiling depression". Although they are seen by the public as

very sunny and positive people with happy families and many fans, the truth is that they are suffering from heavy depression inside. This is a very serious issue,There are many, many more like them, and every day there are people around the globe who commit suicide because of depression, and the rate of depression suicides is rising every year. And depression awareness is not much in people's mind, people don't know anything about depression and they don't know what to do in the face of depression. This is a very serious and dangerous problem for us.

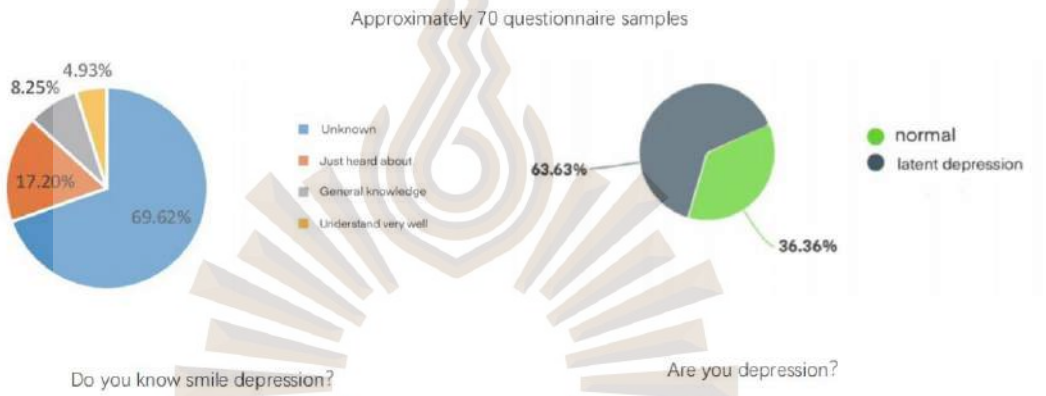

Figure 1.1 Knowledge of Depression and Potential Depression Survey

Source:Researcher

1.4 Research Framework

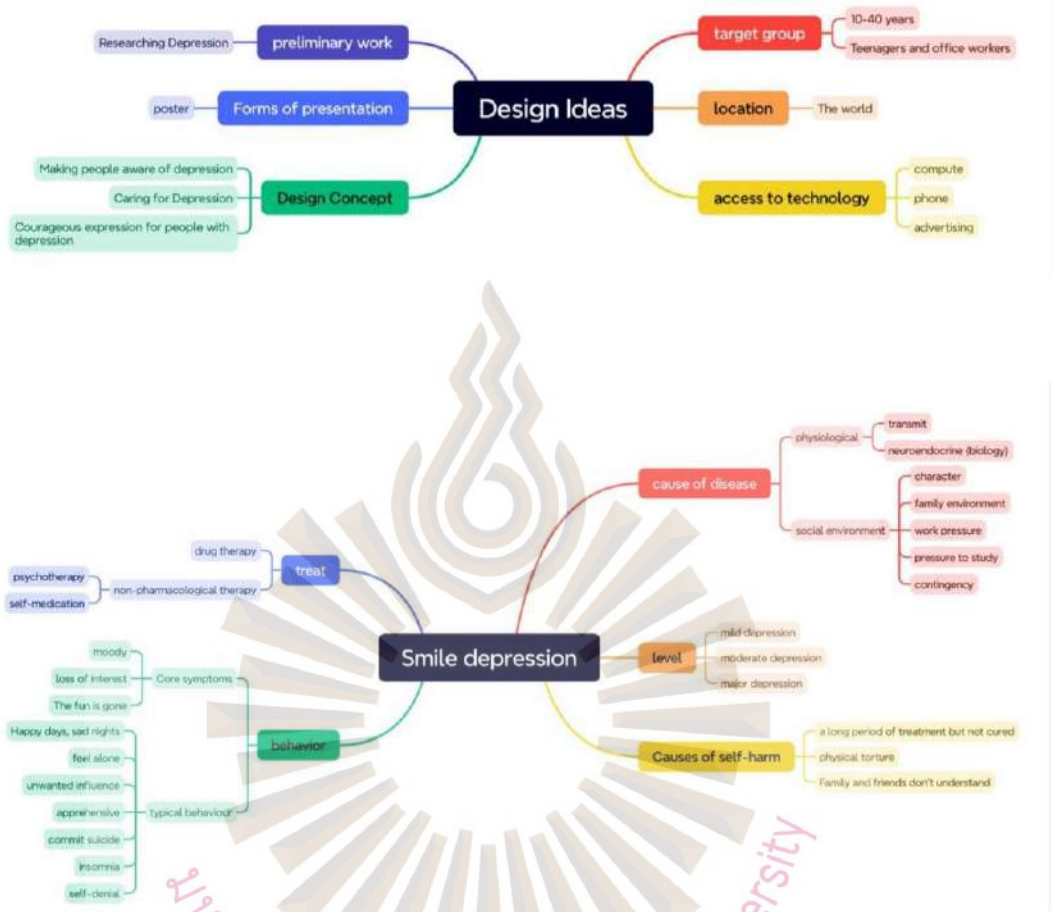

Figure 1.2 Project Research Framework

Source:Researcher

Chapter 2

Literature Review

2.1 Depression history

There is a famous quote about depression: "Depression is like a black hole that eats up all my remaining energy and passion." This "black hole" in our life nowadays is constantly troubling a lot of people, and has brought great influence to many people. It affects their lives, their work, their families and so on.... But in fact, depression is not a new disease of modern life, in the very early days, people may be affected by depression, just each period of the cognition of depression and the social environment at the time of the different conditions, the attitude of people to depression are very different.

2.1.1 Prehistoric civilizations and ancient Egypt

Depression was present when people were still living in primitive times, except that people in those times did not have scientific knowledge as they do now, and they generally believed that depression was the result of demons taking people over. They believed that depressed people were caused by demonic possession. Therefore, it was dealt with by priests rather than doctors(Reynolds & Wilson,2013). Therefore the treatment at that time was to release spells on the patients and organize rituals to exorcise them. At the same time, there were also groups that developed a more advanced treatment for the time, which was to cut holes in the skulls of people suffering from depression; this was also known as "circular sawing". Perforating the skull lowers the cranial pressure, which in turn removes the evil from the brain and releases the demons.

Depression was also documented in Chinese medicine in the very early days of China, but because of the limitations of technology and cognition at the time, it was not known as depression and was collectively referred to as a neurological disorder. In Chinese history, there are many, many historical figures who ended their lives because of depression.

2.1.2 Ancient Greece

On the development of depression, it really began in ancient Greece. While many believed that demons were the root cause of depression, there were some ancient Greek and Roman physicians who believed that depression was a biological and psychological disease(Tipton,2014). At this time depression was not called depression, but melancholia. The reason how the name melancholia came about is that the Greek language of the time called this state melainachol, from which the word melancholy derives. melainachol means black bile. The reason why this word originated is that Hippocrates, a famous physician in Ancient Greece and the father of Western medicine at the time, boldly attempted to apply some realistic ideas to explain depression by proposing the concept of fluid imbalance at a time when everyone believed in theology(Tipton,2014). What can be said in detail is that he believed depression was caused by an excess of black bile in the spleen. Hippocrates chose treatments that included bloodletting, bathing, exercise, and diet.

At a later stage, some philosophers opposed Hippocrates' "doctrine of humors", and depression gradually entered the normal category of heart disease. According to Plato, the world of human consciousness is divided into two parts - feeling and reasoning. Feeling this part is very unreliable, often guide people to the wrong direction, and reasoning this part, can help people through the phenomenon to see the essence. Mental illnesses, on the other hand, tend to focus all of one's attention on closed and painful sensations, personality disorders, affective disorders, and even schizophrenia, which produces hallucinations and disintegrative personality disorders that block one's path to clear reasoning and thinking. In other words, Plato believed that a person's childhood life will determine the formation of their personality, and the

acquired environment also has an important impact on mental health. For this idea, there were others who had similar ideas later in life, a Roman philosopher and statesman Cicero believed that emotions such as anger, fear and sadness were triggers for depression.

2.1.3 Middle age and the Renaissance

The period of the Middle Ages can be said to be the longest and darkest period of time, because in the Middle Ages this period can be said to be the complete religiousization of depression, religious beliefs completely dominated the entire Middle Ages, it can be said that the entire West at that time, the religious characteristics of the West is very significant. During the Middle Ages, religion, especially Christianity, dominated European thinking about mental illness. Once again, people attributed it to the devil, demons or witches. Exorcism, drowning and fire were popular treatments at the time. Many people were imprisoned in so-called "madhouses". The Renaissance began in Italy in the 14th century and spread throughout Europe in the 16th and 17th centuries. Political persecution and execution of the mentally ill, though, were still quite common during the Renaissance. However, more and more doctors began to revisit the idea that mental illness had natural, rather than supernatural, causes, and in 1621, Robert Burton published Anatomy of Melancholy, which outlined the social and psychological causes of depression . In this book, he suggested diet, exercise, travel, laxatives , bloodletting, herbal remedies, and music therapy as treatments for depression. (Brink, 1979) And the Renaissance was also a period that romanticized depression. Aristotle's view is the most representative: people who excelled in philosophy, poetry, art, and politics had the trait of melancholy. The great figures born during the Renaissance seemed to confirm his words, Michelangelo, Da Vinci, Newton, etc. None of them were depressed geniuses. Eventually even formed a fashion, a kind of "aristocratic disease", the whole European high society popular such posture - full of sad face, silent, head of messy hair, lying on the sofa, staring at the ground or staring at the moon, a few hours without moving! .....

2.1.4 The Age of Enlightenment

As people became more and more aware of science, people became more and more interested in the mysteries of nature, and under constant exploration, biology and anatomy made great breakthroughs in this era, and the perception of depression began to go in the direction of materialism, which was the Age of Enlightenment. In the later part of the Age of Enlightenment, the views of doctors began to change and they believed that aggression was at the root of the disorder.(Rössler,2016) And mention proposed treatments such as active exercise, better diet, listening to more music and working with medication, and communicating more with friends, family and doctors about their psychology. Some other doctors of the Age of Enlightenment likewise believed that the psycho-emotional conflict between what you want and what you know is right thus causing depression. Still others tried to identify the physical causes of the condition. The rationalization that accompanied the Industrial Revolution tended to view the human body as a piece of machinery, and the repair of a faulty body part required the use of a crude "wrench" to force it into place. Treatment during this time was different, and physical methods were tried to try to alleviate the depression, including immersion in water and constant drowning, and the use of a rotating stool to put the contents of the brain back in the right place, as well as other treatments such as dietary changes, enemas, horseback riding, and vomiting. Benjamin Franklin also reportedly developed an early form of electroshock therapy during this period. (Bolwig,2009)

2.1.5 19th and 20th centuries

As we entered a new era, the Romanticism that spread from Paris brought a fresh perspective on depression. Historians noted that many talented individuals, such as Isaac Newton and Beethoven, exhibited depressive symptoms. Newton experienced severe depression and suicidal tendencies between 1666 and 1691, while Beethoven, after his hearing deteriorated, fell into "almost constant melancholy," ultimately describing himself as "the most unfortunate of all human beings." Victorian novelist Charles Dickens and artist Van Gogh, who ultimately took his own life, were both

documented by those close to them as having recurring symptoms of mania and depression.

During the Romantic movement of the late 18th to the 19th century, depression was seen as a source of creativity and an insightful psychological state. Romantics emphasized emotion and intuition, believing these qualities could be found not only in pleasure but also in the soul's darker corners. Engaging with depression through sad poems or desolate walks was viewed as a valuable exercise for developing self-awareness. Immanuel Kant even described melancholy as "a refuge from the noise of the world," giving it a special beauty.

However, this revival of melancholy was short-lived. By the late 19th century, advances in psychology and biology began to redefine depression as a mental illness that prevented individuals from becoming their true selves.

From the mid-19th century to the present, depression began to be seen as a mood disorder. This shift was significant because, prior to this, depression was primarily viewed as a physical defect. The new understanding that emotions can affect both the body and mind fundamentally changed the direction of research on depression by doctors and psychologists. This modern view recognizes the complex interplay of biological, psychological, and social factors in causing depression and highlights the importance of treating it as a serious mental health condition.

2.1.6 Until now

To date, depression is increasingly being viewed as a mood disorder. This shift is significant because, although depression has been recognized for a long time, it was traditionally perceived as a physical defect. The new understanding that a person's mood can affect both the body and the mind fundamentally changed the direction of research by doctors and psychologists.

In the 1950s, researchers discovered that individuals showed signs of depression when they were on drugs that depleted monoamine neurotransmitters in large

quantities. This finding was a breakthrough in understanding the biological basis of depression.

Today, depression is much better understood, although researchers are still exploring its causes. Most doctors now believe that depression is caused by a combination of biological, psychological, and social factors. Modern views of depression encompass the many symptoms of the disorder and recognize the cyclical effects these symptoms can have. For example, depression can lead to disturbed sleep, appetite, and activity levels; in turn, poor sleep, diet, and exercise can exacerbate depressive symptoms.

In addition to psychological factors, physicians also consider that certain medical conditions can contribute to depressive symptoms. Diagnosing depression now includes evaluating other potential causes, such as alcohol or drug use, and addressing any underlying medical conditions.

While theories about depression continue to be debated, what remains constant is the condition itself; what changes is human perception of it and of the world. Depression has been present since the dawn of mankind, and the quest to understand it continues. Sadly, from early history to today, people have misunderstood and discriminated against those with depression.

Depression is not the scourge of sinful people, nor a symbol of nobility, extravagance, or shame. It is not merely a bad mood or something as trivial as a common cold. People, I hope you are not so sensitive and fragile; people, I hope you do not gloat over others' suffering.

2.2 Depression Pathology

Depression is a common and serious psychological disorder whose physiologic mechanisms involve abnormal changes in several areas. People with depression typically exhibit imbalances in neurotransmitter systems, particularly reduced

serotonin levels. Studies have shown that reduced serotonin levels lead to abnormal functioning of the mood regulation, stress response and reward systems, which can lead to depressive symptoms (Belmaker & Agam,2008) The neuroendocrine system associated with stress and mood regulation is also abnormally altered in depression. Studies have found that depressed patients display abnormal hormone levels, including elevated cortisol levels, which can lead to overreaction to stress and mental health problems (Dinan,1994). Depression is associated with abnormalities in connectivity and functioning between several brain regions, and activity and connectivity in brain regions such as the prefrontal cortex, amygdala, and hippocampus may be impaired, resulting in increased negative affect, decreased response to reward, and reduced ability to cope with stress (Drevets, 2000). Neuroimaging studies suggest that patients with depression may have altered brain structure and function. These changes may be associated with abnormalities in cognition, mood regulation and coping with stress (Videbech & Ravnkilde,2004). Recent research suggests that chronic inflammation and immune system abnormalities may lead to neurotransmitter and neuroendocrine disorders that affect mood and cognitive function (Miller & Raison,2016).

2.2.1 Neurotic imbalance

Neurotransmitters are a class of chemicals that transmit signals between neurons and are essential for proper brain function. Three of the major neurotransmitters include serotonin, dopamine, and norepinephrine, which play important roles in regulating mood, emotion, cognition, and behavior. One of the pathogenic mechanisms of depression is thought to be related to an imbalance in these neurotransmitters.Serotonin (5-hydroxytryptamine): Serotonin is a neurotransmitter that affects mood regulation, sleep, appetite and pain perception. Studies have shown that people with depression often exhibit reduced serotonin levels. Insufficient serotonin may lead to symptoms of depression such as low mood, anxiety and insomnia. Therefore, increasing serotonin levels is considered an important goal of antidepressant treatment.Dopamine: Dopamine is the neurotransmitter associated with reward, pleasure and motivation. In depressed patients, abnormalities in the dopamine system may result in a diminished response to rewards, known as "pleasure deficit".

This may be manifested as a loss of interest, a decreased sense of enjoyment, and a feeling of boredom with daily activities.Norepinephrine: Norepinephrine is a neurotransmitter associated with the stress response, attention and alertness. People with depression may have an overactive norepinephrine system, leading to excessive anxiety, tension and feelings of stress. At the same time, the over-release of norepinephrine may also affect the balance of other neurotransmitter systems, further exacerbating depression symptoms.

2.2.2 Abnormalities of the neuroendocrine system

The neuroendocrine system plays a crucial role in regulating stress and emotional responses. One of the major neuroendocrine systems is the hypothalamic-pituitary-adrenal (HPA) axis, which is closely associated with stress response and stress regulation. Another important component is thyroid function, which is associated with mood regulation and metabolic regulation. In depressed patients, these neuroendocrine systems often show abnormal changes.Hypothalamic-pituitary-adrenal (HPA) axis:The HPA axis is an important part of the stress response, and it releases cortisol in response to stress. In depression, the HPA axis may become abnormally activated and overreactive, leading to elevated cortisol levels. Chronic stress over a long period of time may lead to overactivation of the HPA axis, which produces an overreaction to stress and a dysregulation of the stress response.High levels of cortisol may affect the functioning of brain regions such as the hippocampus and amygdala, which in turn affects mood regulation, memory and cognitive function. This may exacerbate the symptoms of depression and negatively impact a patient's mental health.

Abnormal thyroid function:Thyroid hormones are important hormones that regulate metabolism and mood. In depression, thyroid function may be abnormal, resulting in lower thyroid hormone levels. Low thyroid hormone is associated with the onset and progression of depression and may lead to symptoms such as fatigue, anxiety and low mood.In addition, abnormal thyroid function may also affect the functioning of other neurotransmitter systems, such as the serotonin and dopamine systems, which can exacerbate the severity of depression symptoms.

2.2.3 Abnormalities in neural network connectivity and function

Abnormalities in neural network connectivity and functioning in depression involve multiple brain regions, including emotion regulation, cognitive control, and reward systems. These abnormalities may lead to a range of symptoms, such as heightened negative affect, reduced response to rewards, and decreased stress coping. The following is a detailed development of these areas:Impairment of emotion-regulating regions:The prefrontal cortex is one of the key areas of the brain responsible for emotion regulation and cognitive control. In people with depression, the function of the prefrontal cortex may be impaired, as evidenced by a decrease in its ability to regulate mood. This may lead to emotional instability and heightened negative emotions. The amygdala, the nucleus responsible for emotional processing and fear responses, is also involved in the pathogenesis of depression. In depressed individuals, the activity of the amygdala may be enhanced, leading to increased sensitivity to negative emotional stimuli, which in turn exacerbates the symptoms of depression.Impaired cognitive control:Depressed patients typically exhibit a decline in cognitive functioning, including attention, memory, and executive functioning. This may be related to abnormalities in the functioning of the prefrontal cortex and other areas of cognitive control, leading to a decline in cognitive control, which in turn affects emotion regulation and behavioral responses.The hippocampus is one of the brain regions closely associated with memory and emotion regulation. In depressed patients, the hippocampus may be reduced in size and may be functionally impaired, which may lead to a decline in memory function, as well as affecting emotion regulation and stress coping.Abnormalities in the reward system:People with depression often show a diminished response to positive rewards, known as "pleasure deficit". This may be related to abnormalities in the brain's reward system, including abnormalities in the functioning of the midbrain dopamine pathway. This leads to a diminished perception of rewarding stimuli and a loss of enjoyment, which exacerbates the symptoms of depression.

2.2.4 Structural and functional changes in the brain

Alterations in brain structure and function in patients with depression have received extensive attention in neuroimaging studies. These changes involve multiple brain regions, including the hippocampus, amygdala, and prefrontal cortex, which are associated with emotion regulation, cognitive function, and stress coping. The following is a detailed unfolding of these areas:Structural changes in the hippocampus:The hippocampus is an important structure in the brain responsible for functions such as memory and emotion regulation. Neuroimaging studies have found that the volume of the hippocampus is generally smaller in depressed patients than in the normal population. This structural alteration of the hippocampus may be associated with decreased memory function and difficulties in emotion regulation in depressed patients.The hippocampus also plays an important role in coping with stress and emotion regulation. Alterations in its structure may lead to a decreased ability to cope with stress, making depressed patients more susceptible to stress and thus exacerbating the symptoms of depression.Structural changes in the amygdala:The amygdala is the center of emotional processing and fear response in the brain. In depressed patients, the structure of the amygdala may change and its size may decrease. This structural change may cause the patient to process negative emotional stimuli more sensitively, exacerbating the symptoms of depression.Abnormal activity in the amygdala is associated with difficulties in emotion regulation and stress coping. In depressed patients, activity in the amygdala may be enhanced, which may contribute to overreaction to negative emotions and difficulties with normal emotion regulation.Impairment of prefrontal cortex function:The prefrontal cortex is one of the key areas of the brain that performs cognitive control and emotion regulation. In depressed individuals, the function of the prefrontal cortex may be impaired, as evidenced by a decrease in its activity level.Impaired functioning of the prefrontal cortex may lead to a decline in cognitive functioning, including attention, executive functioning, and working memory. Meanwhile, decreased emotion regulation may also be associated with abnormal prefrontal cortex functioning, exacerbating negative emotions and emotion regulation difficulties in depressed patients.

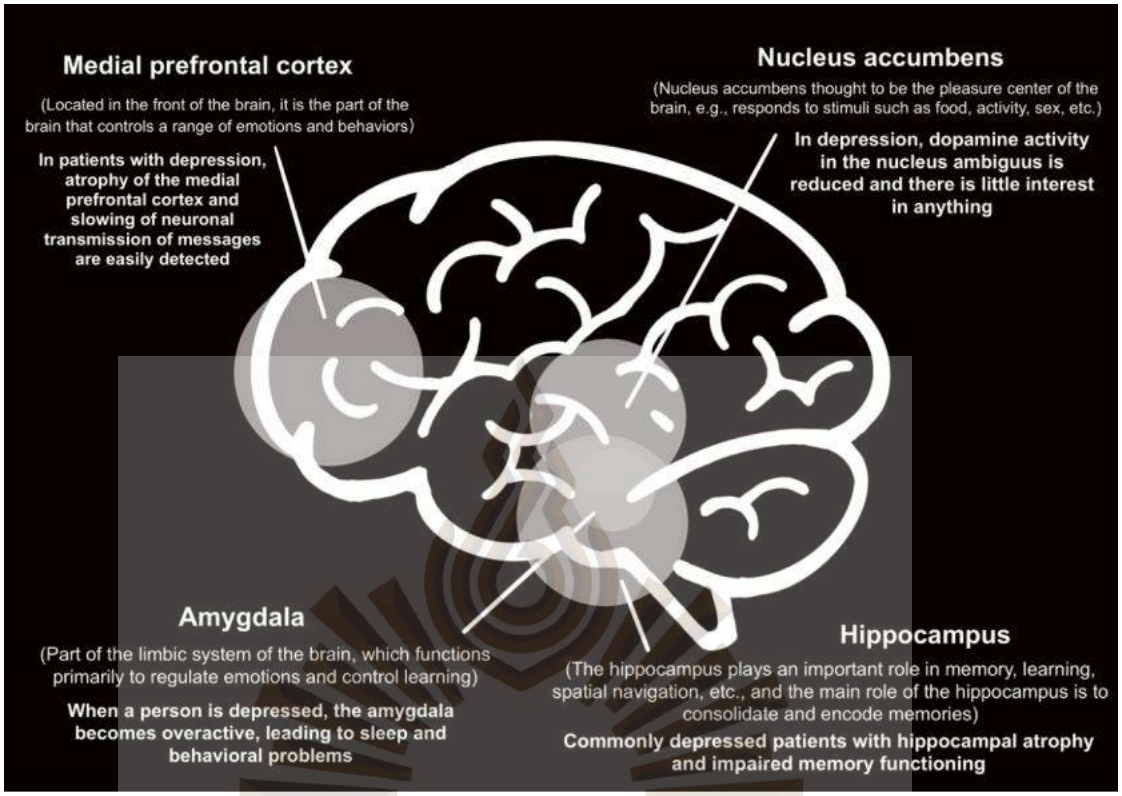

Figure 2.1 The effects of depression on the brain

Source:Researcher

2.2.5 Inflammation and immune system activation

Recent studies suggest that inflammation and immune system activation may play an important role in the pathogenesis of depression. Chronic inflammation and abnormal immune system activity can affect the normal functioning of the neurotransmitter system and the neuroendocrine system, leading to disturbances in mood and cognitive functioning. The following is a detailed unfolding of this aspect:Inflammation and the neurotransmitter system:The activation of the immune system can trigger an inflammatory response, leading to the release of inflammatory mediators in the body. These inflammatory mediators, such as interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF-alpha), may directly or indirectly affect the function of the neurotransmitter system.Many studies have found that inflammatory mediators can affect the synthesis, release and reuptake of neurotransmitter systems such as

dopamine, serotonin and norepinephrine. This can lead to imbalances in the neurotransmitter systems, which can affect mood regulation, emotional responses, and cognitive function.Inflammation and the neuroendocrine system:The release of inflammatory mediators may also affect the functioning of the neuroendocrine system, particularly the hypothalamic-pituitary-adrenal (HPA) axis. Inflammatory mediators may promote activation of the HPA axis, leading to elevated cortisol levels.High levels of cortisol may affect neuronal activity and function in the brain, which in turn affects mood regulation, cognitive function, and stress coping. Prolonged inflammation and abnormal immune system activity may lead to overactivity of the HPA axis, exacerbating symptoms of depression.Effects of Inflammation and Brain Structure and Function:Chronic inflammation and immune system abnormalities may also affect brain structure and function. Several studies have shown that inflammatory mediators may directly affect neurons and synaptic connections in the brain, leading to alterations in neural networks and impaired functioning of brain regions.Such structural and functional alterations may be closely related to cognitive and mood symptoms in depressed patients. For example, inflammatory mediators may affect regions associated with cognitive function and mood regulation, such as the hippocampus and prefrontal cortex, exacerbating symptoms of depression.

2.3 Mechanisms of Depression

Major depressive disorder is a psychiatric disorder whose molecular etiology is still unclear.Studies at different molecular levels have shown that the pathogenesis of depression involves a variety of highly complex and interrelated metabolic pathways, including, inter alia, monoamines, the HPA axis, neurotrophic factors and neurogenesis,excitatory and inhibitory neurotransmission, mitochondrial dysfunction, epigenetics, inflammation, the opioid system, myelination and the gut-brain axis.

2.3.1 Monoamine hypothesis

In the 1950s, researchers discovered that when people used a drug that depleted monoamine neurotransmitters in large amounts, they became depressed. This led to the emergence of the "monoamine hypothesis" as one of the mechanistic hypotheses of depression. According to the "monoamine hypothesis", the reason why depressed people's moods are dominated by pain is simply due to the lack of several monoamine neurotransmitters. These monoamine neurotransmitters include 5-hydroxytryptamine (5-HT), norepinephrine (NE), and dopamine (DA).While there have been many subsequent studies supporting this hypothesis, the drawback is that the clinical onset of antidepressant medications usually takes weeks, and drugs can raise monoamine levels almost instantaneously.

In addition, approximately one-third of depressed patients do not respond to antidepressants that act solely by inhibiting monoamine reabsorption, and limiting the availability of the 5-hydroxytryptamine precursor tryptophan does not induce depressive episodes in all patients. Thus, the monoamine deficiency hypothesis may not be prevalent in depressed patients, suggesting that other pathways and neurotransmitters are associated with depression.

Depression is associated with other neurotransmitter disorders in the brain, cerebrospinal fluid, and peripheral tissues, including GABA and the glutamatergic system. Glutamate levels are reduced in specific brain regions in depressed patients. As a result, newly developed antidepressant treatments have focused on reversing glutamate and GABA deficits by targeting AMPA receptors or type 2 metabotropic glutamate receptors. This has also led to the discovery of fast-acting antidepressants (e.g., ketamine).

In basic and clinical studies, ketamine rapidly increases glutamate signaling, producing rapid and sustained antidepressant effects. Ketamine increases the overall activity of the prefrontal cortex by blocking NMDA receptors and thus excitatory glutamatergic signaling in GABAergic neurons.

Monoamines not only directly affect synaptic neurotransmission, but also indirectly affect intracellular pathways through their G protein-coupled receptors. Among these, opioid receptors functionally interact with 5-HT and dopamine receptors through heterodimerization. A large body of clinical and preclinical evidence suggests the involvement of opioid receptors in MDD pathology. Opioid receptors negatively regulate neurotransmitter release and excitability of neurons through activation of G-protein-mediated mechanisms, leading to enhanced potassium channel function, cellular depolarization, inhibition of voltage-gated calcium channel function, and negative regulation of neurotransmitter release, which further affects neuronal activity and plasticity.

2.3.2 Neurotrophic factor hypothesis

The "neurotrophic hypothesis of depression" suggests that disruption of neurotrophic support is a key mechanism for MDD-related changes in synaptic and brain-related functions. Neurotrophic factors are responsible for neuronal network formation, support and plasticity. Among them, BDNF is an important member of the neurotrophic factor family, which can activate the prokinetic myosin-related kinase (Trk) and p75 receptor. Numerous studies have shown reduced blood levels of neurotrophic factors in patients with persistent depression and relapse, and in animal models of depression. Notably, antidepressant therapy and electroconvulsive therapy increase BDNF levels.

Not only do conventional and rapid antidepressants require BDNF expression and its downstream signaling to be effective, but antidepressants can directly bind to the transmembrane structural domain of the TrkB dimer, resulting in the formation of a stable conformation of the multiprotein complex that facilitates the binding of TrkB to BDNF. Through Trk receptors, neurotrophic factors can activate cell signaling pathways that regulate cell fate, axon growth, dendritic growth and pruning, and overall normal neuronal function.

One of the most notable effects of BDNF is the promotion of adult neurogenesis in the hippocampus, likely acting through most of the signaling described above.Hippocampal neurogenesis deficits in MDD have been associated with autopsy findings of reduced hippocampal size and volume, decreased numbers of neurons and glia, and reduced cell size. Significant correlations have been found between neurogenesis and synaptic activity, including long time-range potentiation (LTP). Adult newborn neurons can modulate dendritic spine density and excitatory synaptic transmission by redistributing pre-existing synapses. Importantly, antidepressants induce neurogenesis, increase plasticity, and reverse hippocampal atrophy.

2.3.3 IHPA axis hypothesis

Stress exposure (especially early in life), is the most completely studied and identified risk factor for depression.The HPA axis is key in orchestrating the body's stress response. The body terminates the stress response through a negative feedback mechanism in which stress-secreted glucocorticoids activate glucocorticoid receptors (GRs). Elevated cortisol levels, HPA overactivity, and negative feedback dysfunction of the HPA axis have been found in some depressed patients. As a result, a variety of drugs targeting the HPA axis have been developed for the treatment of depression, including corticosteroid synthesis inhibitors, GR antagonists, and adrenocorticotropin-releasing hormone receptor antagonists.

Stress induces atrophy of dendritic apical and postsynaptic dendritic spines in the brain, leading to significant synaptic remodeling. Mechanistically, glucocorticoids increase the pool of readily releasable glutamatergic vesicles in the prefrontal cortex by activating membrane receptors. The synaptic and behavioral effects of stress are also mediated through the opioid system. Glucocorticoid signaling interacts with most of the pathways associated with depression, such as BDNF, FKBP51 and autophagy pathways.

2.3.4 Cytokine hypothesis

The "cytokine hypothesis of depression" suggests that the dysregulation of MDD and inflammatory processes is bidirectional. Ongoing immune responses, such as infections, malignancies, or autoimmune diseases, can lead to depression. In fact, an enhanced inflammatory response is associated with MDD. Specific pro-inflammatory cytokines and their receptors associated with MDD include IL-6, TNF-α, IL-1β, IL-2, IL-2 receptor, IL-4, IL-10, IL-1 receptor antagonist, transforming growth factor-β and c-reactive protein (CRP). Pro-inflammatory cytokines are also associated with MDD severity.

Many mechanisms have been proposed to explain the occurrence of inflammation in MDD, including inflammatory vesicle signaling pathways, oxidative stress, altered BBB permeability, and entry of peripheral immune cells into the brain. Mechanisms by which inflammatory pathways affect synaptic activity include pro-inflammatory cytokines that regulate the expression of NMDA and AMPA receptor subunits, reduce AMPA receptor phosphorylation, and ultimately affect glutamatergic synapses and LTP-related processes.

The immune system is closely linked to the neuroendocrine system, and glucocorticoids exert pro- or anti-inflammatory effects under different circumstances. In addition, the increased inflammatory mediators in MDD can significantly interfere with mitochondrial oxidative phosphorylation and ATP production, ultimately leading to increased oxidative stress.

2.3.5 The mitochondrial hypothesis and the oxidative stress hypothesis

Evidence in support of the "mitochondrial hypothesis of depression" is the large number of studies that have found mitochondrial dysfunction in some depressed patients, with alterations in mitochondrial structure and function, including decreased ATP production and disruption of mitochondrial dynamics (fusion, fission, mitochondrial autophagy). Mitochondrial dysfunction also produces free radicals and oxidative stress. In depression oxidative stress markers are elevated and antioxidant

capacity is reduced. Furthermore, mitochondrial dysfunction and oxidative damage are progressive as the disease progresses.

Therefore, the "oxidative stress hypothesis of depression" proposes that oxidative stress is responsible for the structural changes in the brain of depressed patients. Normal levels of reactive oxygen species (ROS) are important signaling molecules that play a key role in neuronal cell function. However, when at high levels and in the presence of low antioxidants, ROS may be harmful to neurons and LTP. Increased oxidative stress may lead to further mitochondrial damage, increased apoptosis, and ultimately inflammatory signaling.

Mitochondria regulate synaptic function and plasticity in a number of ways, including ATP production, Ca2+ buffering and signaling, neurotransmitter synthesis, establishment and maintenance of membrane excitability, and regulation of synaptic vesicle pools and neurotransmitter release. Mitochondria produce oxygen and nitrogen required for synaptic plasticity and activate caspases in dendrites to induce postsynaptic dendritic spine clearance.

2.3.6 The "microbe-gut-brain axis" hypothesis

Evidence supporting the "gut-brain axis" hypothesis is the alteration of the gut microbiome in MDD. Conversely, probiotic supplementation or the Mediterranean diet produced antidepressant effects in patients. A causal relationship between microbiome alterations and depressive-like behaviors can also be confirmed by fecal transplantation of microbiota or specific bacterial experiments. Microbes influence brain activity through specific molecules that modulate synaptic function. A typical example is the kynurenine pathway, which is a metabolite of the essential amino acid tryptophan. Tryptophan was one of the first nutrients reported (over 60-80 years ago) to be associated with depression.

The conversion of tryptophan to the neurotransmitter 5-hydroxytryptophan is clearly associated with synaptic function and depression. However, tryptophan is

primarily metabolized through the kynurenine metabolic pathway, which produces neurotoxic (e.g., quinolinic acid) and neuroprotective (e.g., kynurenic acid) metabolites. Kynurenic acid acts directly at the synapse as a glutamate receptor antagonist by binding to the glycine binding site. In contrast, quinolinic acid is a glutamate receptor agonist that enhances glutamate release and inhibits glutamate reuptake by astrocytes.

2.4 Depression Treatment

The ultimate goal of our treatment of depression is to improve the apparent efficiency and clinical cure rate, minimize the rate of disability and suicide; improve the quality of life, restore social function, and achieve a cure in the true sense; and prevent relapse. The purpose of antidepressant treatment is to control the symptoms of depression and relieve the pain of patients; to effectively prevent the occurrence of suicide and self-injury; to reduce the heavy burden brought by the disease to the society and the family, to truly reduce the rate of disability, and to restore the patients' ability to study, work, and live; and the prevention of recurrence of the disease is one of the purposes of the treatment.

2.4.1 Medication

Antidepressant medications are one of the most common treatments for depression.In the early 1950s, with the birth of the first generation of antidepressants monoamine oxidase inhibitors (MAOI), followed by the emergence of the second generation of antidepressants tricyclic antidepressants, such as promethazine, amitriptyline, doxorubicin and so on, especially in the eighties after the development of selective 5 hydroxytryptamine back uptake inhibitors (SSRI), such as fluoxetine, sertraline, and so on, to its safety, effectiveness, side effects of the light by the doctors and patients. favored by doctors and patients for their safety, effectiveness, and mild side effects. Depression can be treated in a variety of ways, with medication being the mainstay.

Tricyclic antidepressants (TCA), such as promethazine, amitriptyline, doxepin, etc., have a definite curative effect on depression, with a total effective rate of about 70%, but the onset of effect is slow, usually starting in 1-2 weeks, and reaching the best efficacy in 2-3 weeks, and if the treatment is ineffective in 4-6 weeks, the drug is judged to be ineffective for the patient, and consideration is given to the use of the drug. If the treatment is not effective in 4-6 weeks, it can be judged that this drug is not effective for this patient, and consider switching to other antidepressant treatment. These drugs have a wide range of side effects such as dry mouth, constipation, blurred vision, difficulty urinating, tachycardia, weakness, dizziness, heart block, etc., and the side effects appear before the effect of treatment. Therefore, before the start of treatment, patients should be repeatedly warned that they must insist on taking the drug for a period of time before the therapeutic effect can be realized, otherwise, most of the patients will stop taking the drug for 2-3 days because they do not feel the therapeutic effect and the side effects are obvious, so that the disease can not be effectively treated. Monoamine oxidase inhibitors such as phenelzine, the overall efficacy and tricyclic antidepressants similar to or slightly lower, for atypical depression, the efficacy of the better, for tricyclic antidepressants class ineffective patients may also be effective. The drug has a wide range of side effects, mainly headache, dizziness, postural hypotension, excessive sweating, hyperreflexia of tendons, tremor, weakness, rash. This class of drugs and a variety of drugs, food interactions, can not be adrenergic drugs such as epinephrine, mesalamine, etc., tricyclic antidepressants class combined, during the drug also can not consume tyramine-containing foods such as cream, cheese, beer, etc., otherwise it is prone to lead to hypertensive crisis. The third generation of antidepressants selective 5 hydroxytryptamine back uptake inhibitors (SSRI) such as fluoxetine, sertraline, paroxetine, fluvoxamine, etc., the efficacy and tricyclic antidepressants comparable to the antidepressant with a definite antidepressant effect, and the side effects of the lesser, only manifested as mild gastrointestinal reactions, the patient can be tolerated by most of them. Currently considered safe, effective, mild side effects of antidepressants, has gradually replaced tricyclic antidepressants to become the first choice of drugs for clinical treatment of depression. At present, antidepressants are divided into first-line drugs and second-line drugs. According to the clinical

experience at home and abroad, four types of antidepressants are recommended as first-line drugs, and the rest are second-line drugs. Although this proposed program may be suitable for the vast majority of cases of depressive disorders in China, but the first-line, second-line distinction is by no means absolutely static, for some specific cases, as long as the patient meets the specific circumstances, is the best choice, at this time, the second-line drugs can also be considered as the first choice. In addition to 5-hydroxytryptamine reuptake inhibitors, 5-hydroxytryptamine-norepinephrine reuptake inhibitors, norepinephrine and specific pentahydroxytryptamine reuptake inhibitors and tricyclic antidepressants as the first line of drugs, other drugs are included in the second line of drugs, as the second choice of drugs; however, for the appropriate disease, such as psychotic depression, atypical depression, bipolar disorder, depressive episodes can also be preferred. Amoxapine, moclobemide and bupropion are preferred; other drugs such as tianeptine, adenosine methionine and luyutide are also available.

2.4.2 Psychotherapy

Although there are not as many studies on the psychotherapy of depression as there are on medication, there has been a considerable amount of research focusing on setting time-limited psychotherapeutic methods, with the main form of treatment being face-to-face individual therapy in outpatient psychiatric clinics. There are many types of psychotherapies that can be used for patients with depressive disorders, and the main ones that are commonly used are: cognitive therapy, behavioral therapy, interpersonal psychotherapy, kinetic psychotherapy, and marital and family therapy.

Generally speaking, cognitive-behavioral treatments can correct patients' cognitive bias, reduce emotional symptoms, improve behavioral coping ability, and reduce the relapse of patients with depressive disorders; interpersonal psychotherapy mainly deals with the interpersonal problems of patients with depressive disorders, and improves their social adaptability; psychodynamic short-course psychotherapy can be used to repair the inner conflicts and psychological deficits of patients with depressive disorders; and marital or family treatment can improve husband-wife relationship and

family relationship of recovered depressive disorder patients, and reduce the influence of adverse family environment on disease recurrence. The indications for the selection of psychotherapy for depression are shown in the table below:

Types of psychotherapy	Indications for selection
Cognitive behavioral therapy	Obvious prejudices about self, the world and the future, stubborn ways of thinking, maladjustment to reality (including poor treatment of other psychologies), need for medium to high levels of direction and guidance; effective for behavioral training and self-help (highly democratic self-control)
Interpersonal psychotherapy	Recent arguments and disagreements with family members or others, problems with socialization or interaction, recent role transitions and life changes, unusual grief reactions, need for low to moderate direction and guidance, effective at environmental change (establishing possible supportive social relationships)
Psychodynamic therapy	Chronic feelings of emptiness and underestimation of self-worth, loss of childhood or prolonged separation from parents, conflict in previous relationships (both parents, sexual partners), ability to introspect, ability to change repressed self-expression, ability to evaluate dreams and fantasies, little need for advancement and guidance, relatively stable external environment

Figure 2.2 Type of psychotherapy

Source:Researcher

The treatment of depression includes an acute phase, a consolidation phase, and a maintenance phase. For the treatment of the acute phase, the main psychotherapies that have been clearly demonstrated to be effective by current evidence-based evidence include: cognitive behavioral therapy (CBT), interpersonal psychotherapy (IPT), and behavioral psychotherapies (e.g., behavioral activation), which have efficacy similar to that of antidepressant drugs for mild to moderate depression but often need to be combined with medication for severe or endogenous depression; whereas, there is relatively little evidence for the effectiveness of other psychotherapies (e.g., psychodynamic therapy) have relatively little evidence of effectiveness. However, in terms of long-term effects of psychotherapy, meta-analyses have shown that psychodynamic therapy also has good efficacy and is not significantly different from other therapies. In addition, long-term evaluations of treatment effects have shown that CBT and IPT maintain patients in remission longer than medication.

For chronic depression, the efficacy of CBT and IPT may be weaker than that of medication if they are used as a single treatment in the acute phase; however, adjunctive psychotherapy may be helpful in improving social skills and self-confidence even in chronically depressed patients for whom medication is effective.

2.4.3 Phototherapy

Depression light therapy, also known as phototherapy or light treatment, is a non-pharmacological treatment aimed at relieving symptoms of depression through exposure to an artificial light source of specific intensity and frequency. An adjunctive therapy for the treatment of neonatal hyperbilirubinemia by exposure to fluorescent light. The main effect is to convert unconjugated bilirubin into water-soluble isomers that can be easily excreted from the bile and urine body This treatment is commonly used for seasonal depression (seasonal affective disorder), especially in areas that do not receive enough sunlight in the winter months, as seasonal depression is associated with insufficient light exposure.Principles of Treatment:The principle of light therapy is to mimic the light in sunlight by exposure to an artificial light source of higher intensity in order to regulate the body's biological clock and biorhythms, thereby relieving the symptoms of depression. This treatment is particularly aimed at seasonal depression caused by insufficient light exposure.Light parameters:Light therapy typically uses specially designed light therapy lamps or light boxes that produce light that is several times more intense than ordinary indoor lighting and is rich in the blue light band of the spectrum. The light parameters of the treatment usually include the intensity, wavelength and duration of the light.The treatment process:The phototherapy treatment process usually takes place in the morning, when the light can better mimic daylight and also helps to adjust the biological clock. The patient is usually required to sit in front of the light therapy lamp, maintaining a certain distance and time of exposure to the light. The duration and frequency of the treatment is usually determined by the doctor based on the patient's specific condition and symptoms.Treatment Effectiveness:Numerous studies have shown that light therapy has significant efficacy in relieving symptoms in patients with seasonal depression. With light therapy, patients usually feel an improvement in their symptoms within a

few weeks, including improved mood, better sleep quality, and a return of energy. In general, the efficacy of light therapy usually begins to show within the first one to two weeks after treatment begins.Safety:Light therapy is often considered a safe and effective treatment, but it still needs to be done under a doctor's supervision. Prior to administering light therapy, the doctor will assess the patient's health and the severity of the depression and ensure that the treatment is appropriate for the patient. In addition, patients need to be careful to avoid overexposure to light, which can cause adverse reactions to the eyes and skin.

2.4.4 Sport

Recently, we have learned that, with the re-recognition of the function of fitness exercise, people have become more and more aware of the active participation in fitness exercise can not only enhance the physiological health of the organism, enhance the ability of the body to resist disease, but also can play a good role in regulating and promoting the mental health of people.In our fitness, aerobic exercise can reduce anxiety and depression, and have a therapeutic effect on long-term mild to moderate anxiety and depression. People as long as active in life exercise fitness, on the self depression can play a great inhibition; depression the more serious people, exercise fitness treatment effect is more obvious. The level of anxiety and depression decreases after exercise and fitness, even if there is no change in physical functioning. By increasing the way of exercise treatment, can make a person's attention shift, emotional outlet, change of interest, tension is relaxed, mood stabilization. Active exercise, through different sports and different ways of activities, can make people's negative psychology change or eliminate, make people's negative emotions dissipate, and eventually achieve physical and mental smoothness, eliminating the pathological psychological order that has been formed.

In addition, in recent years, many research experiments in biological immunology and medical pathology disciplines have found that people suffering from mental illnesses will affect the immune system, which will lead to a decline in physiological levels and immunity, triggering many physiological diseases. And

appropriate, scientific physical activity, not only will not make the immune system decline, but also help the human body to improve immunity and prevent the occurrence of some physiological diseases. Adopting fitness exercise to regulate and treat people's psychological diseases can gradually restore and improve patients' declining physiological level and immunity, terminate patients' physiological functions affected by psychological diseases, and thus make physiological preparations for alleviating or curing psychological diseases. In conclusion, different sports programs can regulate and treat different mental illnesses, can exercise and improve different mental functions, reduce and treat mental illnesses, as long as the choice is appropriate, actively participate in, and perseverance, will certainly receive good results.

Depression is a representative symptom of bitter feelings and state of mind, also characterized by diminished interest in life, lack of motivation, loss of vitality, etc., reflecting feelings of disappointment, lamentation, and melancholy-related cognitive and somatic aspects. Fitness and exercise interventions 69.1% believed that the depressed mind would evolve in a favorable direction; 5% believed that there was no change. This indicates that the students believed that fitness exercise showed a positive effect on the overall students' depressive psychology. In the process of fitness exercise, the vast majority of students' physical fitness increased and their body shape improved, which undoubtedly gave them full self-confidence. In addition, through the constant difficulties, beyond their own limit ability, developed the students' tenacious will quality, relieve such as anxiety, nervousness, timidity and fear and other emotional disorders, thus effectively preventing the occurrence of depression and other psychological tendencies.

Sports can reduce anxiety and tension reactions and help eliminate bad emotions in daily life. Physical exercise is a random movement of the human body dominated by the cerebral cortex, which is a reflex that starts with sensation, follows with mental activity, and ends with muscle effect activity. This sensory information is realized by stimulating the motor sensory center of the cerebral cortex through the reticular formation of the brainstem, and the cone conductors and motor nerves

emanating from the sensory and motor centers innervate the movement of skeletal muscles. In this process will also activate the brainstem reticular formation, which in turn is the center of emotional activity, the cerebral cortical limbic system a subcortical center is bound to participate in the body's emotional activities, such as the production of fear, anxiety, anger, happiness and other states of mind. In the process of playing sports, it is inevitable that a certain emotion will be accompanied by the production of this emotional nature is determined by the individual's awareness. The pleasure of movement in the process of physical activity is the most direct purpose of individuals engaging in sports.

2.4.5 Lifestyle change

Lifestyle changes are an important non-pharmacological treatment that can help alleviate the symptoms of depression and promote better physical and mental health. By maintaining a regular schedule, eating a healthy diet, exercising moderately, avoiding excessive alcohol and tobacco use, building a support system and social connections, and learning to cope with stress, patients can be helped to better cope with depression and improve their quality of life.Here are a few common lifestyle changes that can have a positive impact on relieving symptoms of depression:Maintain a regular schedule of rest and relaxation:A regular routine is important for regulating your biological clock, improving the quality of your sleep, and boosting your mood. Establishing a regular wake-up time and bedtime, and trying to avoid prolonged use of electronic devices at night, can help restore your body's natural biorhythms.Healthy Eating:Healthy eating is essential for maintaining both physical and mental health. Consuming an abundance of fruits, vegetables, whole grains, and healthy proteins, and limiting processed foods, sugar, and saturated fats can help provide the body with the nutrients it needs, as well as improve mood and mental state.Moderate Exercise:Moderate physical activity is very beneficial in relieving symptoms of depression. Exercise releases neurotransmitters in the brain, such as endorphins and dopamine, which elevates mood, reduces anxiety and stress, and improves sleep quality. At least 150 minutes of moderate-intensity aerobic exercise, such as brisk walking, swimming, or bicycling, per week is

recommended.Avoid excessive drinking and smoking:Excessive drinking and smoking can not only take a toll on your health, but can also worsen symptoms of depression. The effects of alcohol and nicotine on the nervous system may lead to mood swings and emotional instability. Therefore, reducing alcohol and nicotine intake, or better yet, abstaining, is very important for improving depression symptoms.Build a support system and social connections: Building a good support system and social connections with family, friends, and the community can provide emotional support and understanding, reducing feelings of isolation and symptoms of depression. Participating in social activities, joining interest groups or volunteering organizations can help increase social interaction and build a support network.Learn to cope with stress:Learning coping with stress and mood management techniques is also important to alleviate symptoms of depression. Using relaxation techniques such as deep breathing, progressive muscle relaxation, or meditation can help reduce tension and anxiety and increase mental resilience.

2.4.6 Other methods

Electroshock therapy (electroconvulsive therapy, ECT) and magnetic stimulation therapy (transcranial magnetic stimulation, TMS) are two non-pharmacological treatments that are used in some cases to treat depression. They are usually considered a treatment option of last resort and are only considered when other treatments have failed or are not tolerated...Electroconvulsive Therapy (ECT):Principle of treatment : ECT is a treatment that induces artificial seizures by applying an electric current to the patient's brain. Although its exact mechanism of action is unknown, it is thought to be able to modulate the release of neurotransmitters and neuronal activity in the brain, thus improving symptoms of depression.Procedure: During ECT treatment, patients are usually treated with anesthesia and muscle relaxants before an electric current is delivered to the head via electrode patches to induce a controlled seizure. Typically, ECT treatments usually take multiple sessions and are performed one to three times per week.TREATMENT EFFECTIVENESS: ECT is often considered a fast and effective treatment, especially for patients with major depression or those who do not respond to medication. Many studies have

shown that ECT can significantly improve symptoms of depression after a few sessions, but its continued effectiveness needs to be further observed.Side effects and risks: Despite the significant efficacy of ECT in treating depression, it comes with a number of side effects and risks, including short-term memory impairment, headaches, muscle pain, and cardiac arrhythmias. Therefore, the therapeutic effects need to be weighed against the potential risks when considering treatment with ECT.Magnetic Stimulation Therapy (TMS):Treatment Principle: TMS is a treatment that stimulates areas of the brain by applying a pulsed magnetic field to the patient's head. It is thought to be able to modulate neuronal activity in the brain, particularly in areas associated with mood regulation, thereby improving symptoms of depression.TREATMENT PROCESS: During a TMS session, the patient usually sits in a special chair, a magnetic stimulation device is placed on the head, and pulses of magnetic fields are applied to specific areas of the brain. The treatment usually takes multiple sessions and is performed several times a week.Treatment effects: Many clinical studies have shown that TMS can significantly improve symptoms in depressed patients after multiple sessions, especially in some patients who are ineffective on antidepressant medications.The effects of TMS usually last for several months.Side effects and risks: Compared with ECT, TMS usually has fewer side effects and risks, which mainly include headache, scalp tingling and facial muscle contraction. However, TMS is not suitable for all patients with depression and its long-term efficacy requires further study.

2.5 Depression influencing human life

2.5.1 Causes of depression

At present, there are six major types of causes of depression. The first type is organic lesions; biological lesions in the brain, such as traumatic brain injuries and brain diseases, cause depression, which cannot be cured at present and requires long-term use of antidepressants. It is said that Chinese actor Leslie Cheung's depression was caused by some biological lesions in the brain, which led to depression that could not be controlled and finally led to suicide.

The second category is loss; Sigmund Freud was the first person to interpret the phenomenon of depression, he believed that depression is generated by the sadness of losing a loved one, and if this sadness cannot be expressed, the sadness will be transformed into depression. Later scholars argued that depression can occur whenever there is a loss-related situation, and that the object of the loss is not necessarily tangible, but can also be intangible, such as desires, ideals, youth, and so on. Loss-induced depression can be dealt with through mourning. By mourning the loss of the object, the depression can be transformed into sadness, and the depression will be alleviated or disappear.This is something that is easier said than done because many times we don't know what we have lost and therefore can't initiate the ritual of mourning;

The third type is an overly idealized self; this type of person has overly high expectations of himself, he will set a high goal for himself, but in reality he will not be able to reach that goal, and this gap between ideal and reality will cause him great frustration. A person who lives in self-defeat for a long time is bound to enter a state of depression. A person who is depressed because of his over-idealized self can use cognitive-behavioral therapy to correct his over-idealized self and reduce his frustration by lowering his demands on himself, thus achieving relief from depression.

The fourth category is anger turned on itself; depression in children and adolescents often falls into this type of depression. Some children are raised with a lot of anger toward their own parents, and when this anger cannot be expressed toward the parents, the anger is shut off from the conscious mind and then directed toward the self, turning it into a form of self-aggression. Imagine a person who beats himself up every day, can he have a pleasant mood? Depression resulting from self-aggression begins with bringing the anger that has been shut off to the outside of consciousness back into consciousness and redirected toward the parents, so that he realizes that he has anger toward his parents, but that's something that's easier said than done, because if you tell him directly, "You have a lot of anger toward your parents, and you're trying to attack them," he'll say: "No, I don't have thoughts of attacking them", and this

attack is on a subconscious level and only comes back to the conscious level when he experiences it himself.

The fifth category is fragile self-esteem; fragile self-esteem's can give rise to a great deal of helplessness, despair and negative emotions. Feelings of helplessness and despair are the main manifestations of depressive episodes; depression caused by fragile self-esteem, we must first repair his low self-esteem, through continuous encouragement, recognition and support, his low self-esteem little by little up, when self-esteem is repaired, helplessness, despair, and negative emotions will naturally be reduced accordingly.The sixth category is internalized depression; when a child has a strict, critical parent, the child will internalize a strict, critical parent into his or her own inner world. As an adult, that inner-world parent will continue to pick on him even though that harsh, critical parent is no longer with him. When the day comes when he can no longer satisfy that picky parent in his inner world, he becomes depressed. When the old relationship pattern is replaced by a new one, the depression will really be improved and will be less likely to recur.

2.5.2 Symptoms of depression

Depression is a common and serious mental health problem that affects the lives of many people across the globe. In addition to low mood, depression is accompanied by a range of physical and mental symptoms that place a huge burden on the lives of those who suffer from it. The core feature of depression is a persistent low mood. Sufferers usually feel an inescapable sense of frustration, sadness, and despair; in addition, depressed individuals may experience mood swings ranging from extreme sadness to anger and anxiety (American Psychiatric Association, 2013). And it is usually accompanied by physical symptoms. Like persistent fatigue, sleep problems, appetite changes, weight fluctuations, and physical pain or discomfort. These physical symptoms may further aggravate the patient's depressed mood, creating a vicious cycle (Malhi, Mann, & Berk,2018). Depression may also affect cognitive abilities and thinking styles. Symptoms such as possible lack of attention and concentration, memory loss, and negative thinking can exacerbate the patient's psychological burden

and interfere with his or her daily life (National Institute of Mental Health, 2019). In addition to psychological and behavioral symptoms, it can also lead to a range of physical symptoms such as headaches, upset stomach, and heart palpitations. These physical symptoms can be the result of interactions between the mind and body that exacerbate the patient's suffering (Schneider, 2013).

Figure 2.3 Clinical depression

Source:Researcher

2.5.3 The Dangers of Depression

Depression is a very common mental illness, and as just told, depression not only affects us psychologically, but also physically. So there are many dangers that depression brings to our life. First of all, depression will make people become very negative, at first may originally look very energetic a person will become listless, and later will make the patient in a long time in a kind of sadness, depressed state, some serious patients will be depression of the state of rigidity. Patients will feel that all kinds of unsatisfactory things in the past come to their mind, and feel that their prospects are bleak, what joy has disappeared, and have a strong sense of misanthropy. Secondly, it will also affect the social functioning of the person, patients with severe depression will have difficulty in concentrating and thinking; depression will make it difficult for patients to have clear thinking and make very small decisions; patients will also become slow in speech, less speech, slow reaction, which will make the patient's interpersonal interactions become difficult; depression will make people isolate themselves from socializing, and most of the patients with depression are living in "isolation" almost. isolation".

And then will also make people suffer in the heart, which leads to insomnia, some very common things in the eyes of depressed people become unusual, they repeatedly subjected to internal struggle to consume the passion of life, while constantly blaming themselves, a lot of small things they will not stop asking questions, non-stop analysis, the result will be non-stop bull's-eye themselves will be more and more trapped and unable to extricate themselves. Many depressed patients show that it is difficult to fall asleep, sleep is very shallow and dreamy and easy to be woken up, the quality of sleep is very poor, the pain of long-term insomnia is very easy to drive people crazy.

Finally, the physical damage to the person is also very serious, we all know that a person's mental state will, to a certain extent, affect the behavior of this person, if the symptoms of long-term depression, there will be physical weakness and even pain for no reason, appetite will become worse, panic sweating, etc., which is only the initial physical manifestations of depression, if it is a long period of time, depression will lead to a decline in the body's immune system, blood vessel tension increases,

blood pressure increases, these physical symptoms, the body's immunity, blood pressure increases, and so on. Blood pressure rises, these physical symptoms may develop into persistent diseases such as gastric disease, cardiovascular disease, and even cancer. The most serious harm of depression is the patient's self-harm, the idea of suicide constantly appear, depression patients strong sense of misanthropy and the sense of worthlessness will make depression patients have the idea of death to free themselves, their success rate of suicide is also very high.

2.5.4 How to relax

Depression can not only rely on drugs and doctors to control depression, depression patients themselves can also do a lot of things to let themselves get relaxed, so as to control depression.1, go out and insist on exercise:Many depressed people will say: "I am now this way, do not want to move, just want to lie in bed, you actually let me go to exercise". Depressed people have a distinctive feature is that they like to stay alone in the room, and over time they will become sluggish, lazy and unkempt. This can exacerbate the negative, negative mood of a depressed person to some extent and you need to change this habit. Exercise helps the brain to secrete active substances and also facilitates insomniacs to sleep peacefully at night.Get out of the house to exercise and get some fresh air. Exercising outside also regulates mood and relieves depressive symptoms to some extent. A minimum of three aerobic exercise sessions per week, each lasting no less than 30 minutes, is the most effective. Aerobic exercise can stimulate the brain to secrete happy factors, which can relieve depression while also relieving anxiety, irritability and many other bad moods. Don't do very intense exercise at first, you can start with simple exercises such as walking and cycling. If conditions allow, you can choose to exercise with family and friends, which is easier to adhere to.2. Go out and socialize:Keeping yourself at home to avoid socializing is also one of the main symptoms of depression. You can try to contact with the outside world, do not always be alone, try to participate in some different forms of social activities, to reduce the behavior of their own nonsense. To learn to talk, there should be at least one friend around you can talk to, at least in their most devastated, do not huddle in a corner alone in silent tears, find a small partner to share your pain,

someone to accompany you not to be alone in the edge of the collapse.3.Write a diary:Write down your feelings, analyze it, recognize it, know what is negative, belong to the performance of depression, and then find ways to get rid of it. It is best to keep a diary. You can also write down good experiences, progress and achievements in your diary. If you keep a diary like this every day, you will find life more and more interesting.4. Seek help from depressed people who have recovered well:Part of the European model of healthcare is that patients who have recovered well will offer help to other patients, sometimes more usefully than what the doctor says. So depressed patients can also seek help from patients who have recovered well, because many feelings that ordinary people can't describe can be released when a third party who has had the same experience says those things instead. The description of the third-party perspective is indeed very important to help.5.Depressed people should pay attention to diet:Even if there is no appetite, do not skip meals, so as not to cause malnutrition, and likewise do not overeat. Usually you can eat some bananas, bananas contain a kind of alkaloid substance, can make a person's state of mind uplifting to improve self-confidence, and bananas can help the brain to reduce the low mood. You can also eat some spinach, grapefruit, cherries, pumpkin and so on.If you are having suicidal thoughts: remember that you are not alone, many people have gone through what you are going through and found help, talk to someone you trust about how you feel, talk to a health worker such as a doctor or counselor join a support group.If you think you are in immediate danger of harming yourself, contact any available emergency service or crisis line.

2.6 Target group and media

Depression can happen to anyone. People who have experienced abuse, major loss, or other stressful events are more likely to develop depression. Women are more likely to develop depression than men. An estimated 3.8% of the population suffers from depression, including 5% of adults (4% of men and 6% of women), and 5.7% of adults over the age of 60. Approximately 280 million people in the world suffer from depression. Depression is about 50% more common in women than in men. Worldwide, more than 10% of pregnant women and women who have just given

birth suffer from depression. More than 700,000 people die by suicide each year. Suicide is the fourth leading cause of death among people aged 15-29.

The primary target audience for the campaign is working professionals aged 25 to 40, with secondary targets being college students.

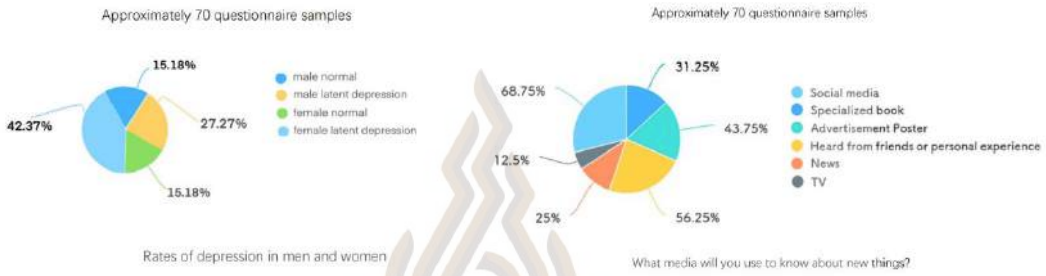

Figure 2.4 Survey of Gender and Ways of Understanding New Things in Depression
Source:Researcher

Chapter 3

Research Methodology

3.1 Design Thinking Theory

Regarding my design idea theory, I have studied a lot of existing graphic design expressions about depression on the market, almost all graphic design works about depression are in black, white and gray and other dark color tones, this kind of works looks and feels very depressing. It looks very monotonous and cold.

About the design concept of my project, I want to break the traditional colors of graphic design about depression, I want to try to use more colors may express the depression. Let people see my project can feel relaxed and happy, and at the same time can learn about depression.

3.2 Visual communication and information exchange

Visual Visual communication design is a concept popularized at the 1960 World Design Conference in Tokyo, encompassing the design of newspapers, environmental visual design, magazines, posters, and other printed publicity materials, as well as film, television, electronic billboards, and other communication media. It collectively refers to the use of visual symbols to convey relevant content to the eyes, thus embodying expressive design. In short, visual communication design is about "designing for people to see, design for informing." Its components include text, graphics, and color(Meggs & Purvis,2016).The value of visual communication lies in its use of visual symbols to convey various information. Designers serve as the senders of information, while the recipients are the objects of communication. Various types of visual communication design have their own meanings and characteristics. In the development of visual communication design, the

cross-fertilization between art, design, and many humanities and social sciences disciplines is evident. The interaction and mutual promotion among various specialties in art and design and other disciplines should not be confined to disciplinary as such interaction and promotion constitute the history of their formation. The development of various professional arts and designs should also inevitably reflect the cross-fertilization with other disciplines associated with them, in order to cultivate talents in specialized art and design that can adapt to the rapid development of various industries. For example, specialties such as "clothing design and engineering" and "packaging engineering and design" have emerged to meet the needs of market segmentation today and in the future. However, at present, these specialties rely on engineering disciplines, which is a move to abandon the root and pursue the end. The fundamental solution to the progress of China's local industry lies in "Designed in China," which goes beyond mere satisfaction with "Made in China." "Design" is different from the concept of "manufacturing." The former involves the development of unknown areas and new objects and forms, potentially leading to creative discoveries, while the latter is merely the bulk processing and reproduction of these developments and discoveries. For designers to meet the needs of "China Design," understanding and familiarity with relevant industrial technologies are important, but the cultivation of designers' creativity remains the top priority(Malcolm, 2019).

Visual communication includes two basic concepts: "visual symbol" and "communication". The so-called "visual symbols", as the name suggests, refer to the symbols that the human visual organ - eyes can see which can express the certain nature of things, such as photography, television, movies, plastic arts, buildings, all kinds of designs, urban architecture, and all kinds of sciences, words, and also stage design, music, and text, which can be used to express the nature of things. The visual symbols include photography, television, movies, plastic arts, buildings, designs, urban architecture, various sciences, texts, stage designs, music, heraldry, ancient coins and so on, all of which can be seen with the eyes. The so-called "conveyance" refers to the process of the information sender using symbols to transmit information to the receiver, which can be conveyed within the individual, but also may be

conveyed between individuals, such as between all living things, man and nature, man and the environment, as well as the information conveyed within the human body, and so on. It includes the four procedures of who, what to put, to whom to convey, and how effective and influential it is. As the name suggests, visual communication design is mainly to convey all kinds of information to people through the use of vision, so the main elements that constitute visual communication design are text, illustrations and logos, which are the three, the most important constituent elements of visual communication design, which also determines that the main function of visual communication design is to convey what the designer wants to express through these three elements to each of the The main function of visual communication design is to convey what the designer wants to express through these three elements to every receiver who receives the message, and its main function is to play the role of dissemination. There are a lot of fields involved in visual communication design, such as various advertisements on TV, signboards on the road, etc., which all belong to the field of visual communication design, but in design science, there is still a division of visual communication design, which are as follows: 1)Typeface design, like the popular personalized signatures, which belong to the range of typeface design.2)Display design, like the arrangement of each item in the exhibition and the design of the exhibition; and the design of the exhibition, like the design of the exhibition. Exhibition of each item on the layout and location, etc.3)Packaging design almost in daily life can be seen, the new buy back the unopened items outside the layer of packaging 4)Logo design is each company has its own LOGO, the design of the LOGO is a logo design; there is also the layout design and illustration design. 5)Image design: refers to the use of visual design means, through the logo modeling design. Visual design means, through the logo modeling and specific color and other means of expression, so that the enterprise's business philosophy, behavioral concepts, management characteristics, product packaging style, marketing guidelines and strategies to form an overall image. 6)Book design: in order to achieve the purpose of effectively conveying specific information about the enterprise, the text of the strokes, structure, modeling, color, and the arrangement of certain artistic processing, so that the formation of a distinctive personality, so that people can easily recognize and easy to use, and illustration design. 7)Advertisement design: all kinds of handmade or

computerized painting means or image technology, as well as the use of composite methods of creative image design, clever ideas, unique performance.

Visual image recognition system design: the medium between the product and the consumer, which plays a role in the protection of commodities, the introduction of commodities, beautification of commodities, guidance for consumption, easy storage, transportation, sales and measurement. In my opinion, contemporary design should be combined with culture. While reflecting nationalization and regionalization, visual communication design should also take advantage of traditional and regional graphic language to express modern spiritual concepts, combine deconstructed nationalized graphics with modern design ideas to create an image with both traditional cultural elements and modern consciousness, and participate in the development of the world's cultures with a unique personality.

The McDonald's logo, featuring the golden arches forming the letter "M," epitomizes effective visual communication design. Its simplicity, symbolism, versatility, consistency, and cultural adaptability make it instantly recognizable worldwide. By embodying the brand's values of familiarity, consistency, and accessibility, the logo has become a timeless symbol of quality and convenience in the fast-food industry.

Figure 3.1 McDonald's logo

Source:品牌标识 | 麦当劳官网, n.d.

3.3 Color Therapy

The energy of color subtly regulates the mind and body, promoting health. Today, there are 600 specially trained color therapists in the UK. While color consultants focus on making people appear more beautiful on the outside, the emergence of color therapists aims to enhance inner well-being.

In 1982, a study conducted by the School of Nursing at San Diego State University in California(School of Nursing, San Diego State University,1982) demonstrated that exposure to blue light significantly alleviated pain in women suffering from rheumatoid arthritis. Similarly, a study in the United States in 1990(American Association for the Advancement of Science,1990) revealed that flickering red light could relieve severe migraines within one hour. Elena de Dionisio, a color therapist at the Florida Center for Health and Harmony, states that color therapy is frequently used to treat dyslexia, Alzheimer's disease, and attention deficits. According to Ms. Dionisio, "The medicine of the future will be a combination of color, sound, and light."

Currently, there are approximately 600 color therapists in the UK. They are required to study anatomy, physiology, and counseling techniques at the International Color Society or similar institutions and obtain certification before practicing. In the UK, color therapy typically charges £45 per session.

During color therapy sessions, therapists first gain a comprehensive understanding of the subject's health history and lifestyle. They then present the subject with various colored silk scarves to choose their four favorite colors. Therapists use these color choices to initiate treatment by distributing colored light to different parts of the subject's body through the seven-wheel acupuncture points.

In September of this year, a specialized relaxation therapy widely influential in Europe was introduced to the United States for the first time. Known as "Sensory Harmonization Relaxation," this therapy utilizes a machine that combines color, light,

and music therapy, allowing users to reduce stress and achieve physical and mental relaxation. Additionally, color therapy is often combined with other therapies in today's healthcare for optimal health and healing. An increasing number of yoga instructors are incorporating colored lights into their yoga classes, projecting them from the back of the classroom to enhance the practice. Pete Stephenson, a computer programmer in Palm Beach, Florida, remarked after attending a colorful yoga class, "I'm surprised no one has thought of this before; the colors really help keep the body in balance." Some yoga teachers also instruct students to visualize a green ball in the heart area as a method to enhance love and improve physical and mental balance. In the United States, there are gyms that utilize colored lights in their indoor cycling classes. In Madrid, Spain's capital, there is a hotel featuring color therapy called the "Seven-Color Room Hotel," designed to improve the physical and mental health of tourists. Particularly, the hotel manager mentioned that the hotel has a yellow room where tourists can rebuild self-confidence and reduce mental burden.

The application of color psychology to human mental health is known as chromotherapy and can be used to reduce stress. From the perspective of color psychology, color acts as a mirror that directly reflects one's mood, uplifting emotions, healing wounds, and fostering positivity and happiness. For example, red, yellow, green, blue, purple, orange, etc., have various effects: orange dispels depression, yellow boosts self-confidence, green calms nerves, red ignites enthusiasm, blue aids sleep, and purple relieves headaches.

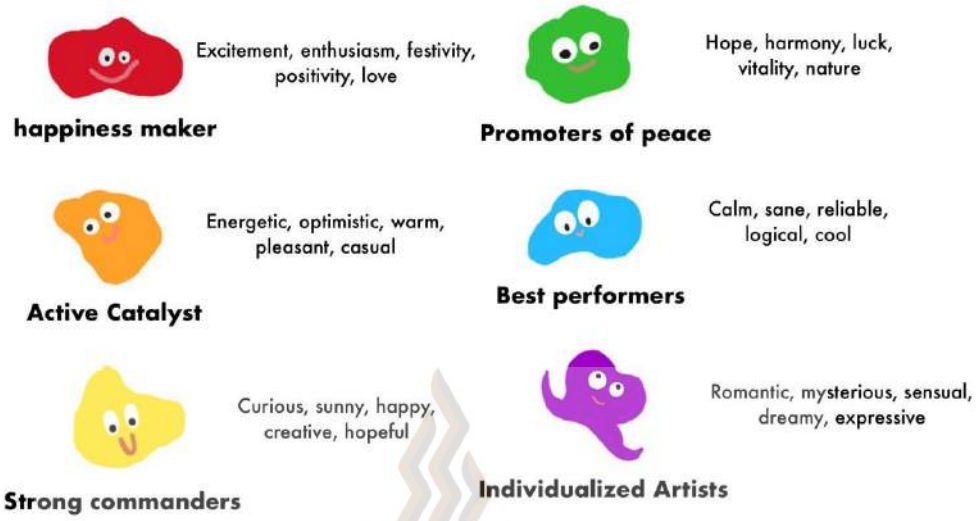

Figure 3.2 Color Therapy

Source:Researcher

3.4 Anthropomorphic Mascot

In the business and entertainment world, anthropomorphic mascots have become an important tool for brand communication and marketing. These cute and funny characters not only represent the brand image, but also create an emotional connection with consumers and enhance brand recognition and affinity. Anthropomorphic mascots are images that give non-living objects or abstract concepts human characteristics, such as animals, plants or fictional characters. They often have unique appearances, personalities, and storylines that attract attention and trigger empathy and emotional resonance. Anthropomorphic mascots can give personality and emotion to a brand. By creating a vivid character for a brand, consumers can more easily establish an emotional connection with the brand. This emotional connection translates into consumer loyalty and brand recognition, which in turn promotes sales and performance growth. Anthropomorphic mascots can enhance brand visibility and awareness. These unique and interesting images often attract attention and generate buzz in advertisements, events and social media. By interacting with an

anthropomorphic mascot, consumers are more likely to remember the brand, creating brand word-of-mouth and communication. Anthropomorphic mascots can also convey a brand's core values and cultural philosophy. Through the behavior and words of mascots, brands can convey positive messages and values to consumers, shaping brand image and reputation. This emotional connection helps consumers trust and recognize the brand.

Kumamon is the mascot of Kumamoto Prefecture in Japan, making its debut in 2010. It's a black bear with large, round eyes and a friendly expression. Kumamon quickly won people's hearts with its simple yet charming appearance, becoming the cultural representative and tourism ambassador of Kumamoto Prefecture. Whether in Japan or internationally, Kumamon is highly popular, often appearing on various merchandise, events, and promotions, bringing significant visibility and popularity to Kumamoto Prefecture.

Chapter 4

Design Development

4.1 Case study

Before embarking on the design process, I dedicated time to studying various relevant case studies. Given that Smiling Mind is a global initiative, it necessitates a theme name or slogan that is easily memorable. I explored similar initiatives, such as one focused on supporting individuals with mental health conditions, aptly named "HOW ARE U?" This simple yet impactful name encourages people to reach out and check on others, while its vibrant logo, featuring bright colors, further captivates attention and imbues a sense of vitality. Moreover, as my theme revolves around depression, I delved into learning about various behavioral illustrations of depression to effectively showcase it in my project. Smiling depression, in particular, encapsulates the contradiction and conflict between outward smiles and inner sadness. Therefore, I delved deeper into understanding how to visually represent both smiles and sadness through graphics, in order to better convey the concept of smiling depression to everyone.

Figure 4.1 Depression Activity Title
Source:Wong, 2020

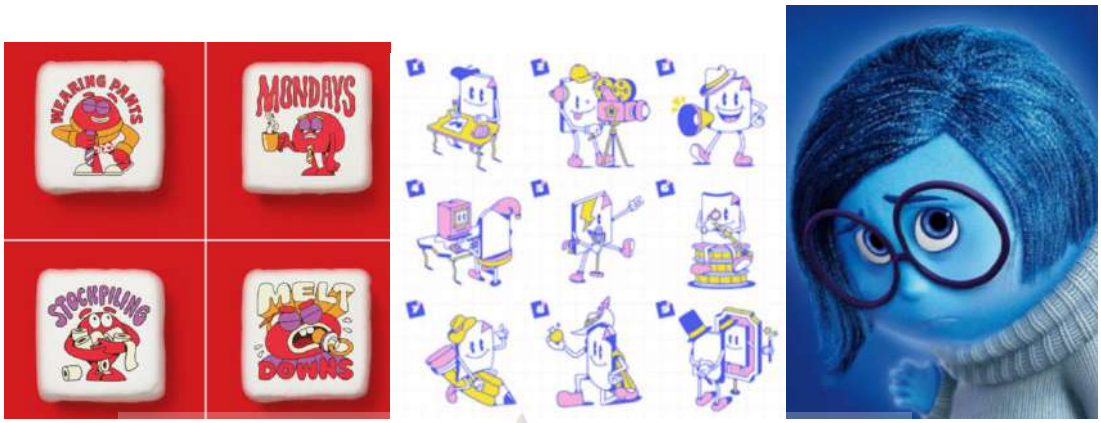

Figure 4.2 Behavioral and emotional expression
Source:WBehance, 2022

4.2 Design process

Before starting the design again I did some interviews aimed at people with depression and people under today's society. Depressed people usually try to stay as normal as possible in their day to day life, whether it's going to work or studying, and in society, once they get home at night they start to feel very helpless and lonely, they don't have much interest in doing anything else they don't feel safe and they have insomnia. Nowadays, due to the increase of social pressure, we all want to have some new and interesting ways to understand a brand new thing. In today's society, depression has become a widespread mental health problem, and traditional depression posters often present a dull and depressing atmosphere, failing to effectively attract people's attention and concern. In order to innovate the form of the depression poster and to bring more attention and understanding to this issue, combining elements of pop art could be a creative direction. Pop art is a vibrant and fun art form characterized by bright colors, exaggerated forms and pop culture elements. Combining pop style with depression posters can breathe new life and vitality into traditional posters and attract more people's attention. The "SmilingMind" campaign aims to revolutionize the way we perceive and address depression in today's society. By blending elements of pop art with traditional depression awareness posters, we're creating a vibrant and captivating visual language that speaks to a wide audience. Utilize bright and bold colors synonymous with pop art to convey the spectrum of emotions experienced by individuals with depression. Each illustration can depict a different aspect of the

condition, from the initial facade of normalcy to the underlying feelings of isolation and despair. Embrace exaggerated forms and playful imagery to symbolize the distorted perception many individuals with depression experience. This artistic approach can visually communicate the disconnect between internal struggles and external appearances. Incorporate elements of pop culture into the artwork to make the campaign more relatable and engaging to a younger audience. By weaving familiar icons and symbols into the posters, we can bridge the gap between mental health awareness and contemporary culture. Craft empowering slogans and messages that challenge stigmas surrounding depression and encourage empathy and understanding. By reframing the conversation around mental health in a positive light, we can foster a more supportive and inclusive society. Extend the campaign beyond traditional posters to include multimedia elements such as short films, social media content, and interactive websites. This multimedia approach ensures maximum reach and engagement across diverse platforms and demographics.

The name of the activity is "Smilingmind". The word "smiling" implies a smile, which is a universal way for humans to express emotions, while mental health is a topic that everyone cares about. The choice of the activity name can resonate with people, prompting them to pay more attention to their own and others' mental health. The term "mind" refers to the mind or thinking, indicating that this activity is not just about smiling, but also about thoughts and mental health. By combining these two aspects, it attracts people's attention and arouses curiosity about the theme of the activity. Furthermore, the combination of the two words creates a sharp contrast, highlighting the relationship between smiling and depression, and emphasizing the importance of mental state. "SmilingMind" is a concise and clear name, easy to understand and remember. It directly conveys the theme of the activity, which is to explore and understand depression behind the smile.

Figure 4.3 Headline Typography by smilingmind

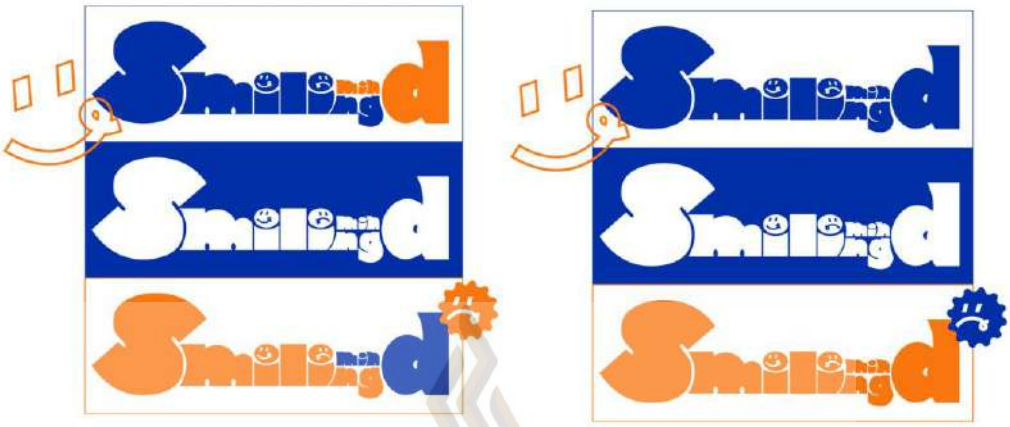

Figure 4.3 Headline Typography by smilingmind (continued)

Source:Researcher

When it comes to depression, the first thing that comes to mind is the damage it can do to people. Not only does depression affect our mental health, but it can also cause serious damage to our brains.Therefore,I would like to link depression to the heart and the brain, and show people the dangers of depression and its effects on patients by showing heavy psychological burdens and impaired cognitive functions, in order to raise awareness of depression.

Presonalities:An unhappy heart and an uninspired brain. Anthropomorphize the heart and brain, use cartoon style to show depression, more affinity and vitality, vivid expression, action anthropomorphism, not only can reflect the depression, but also better pull into the distance with the target group.

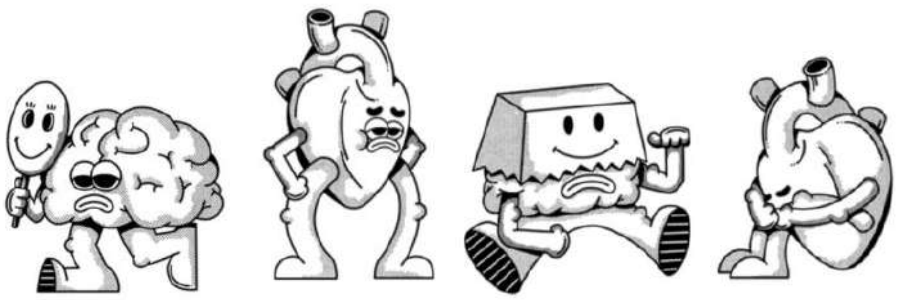

Figure 4.4 Illustration Sketch Design

Source:Researcher

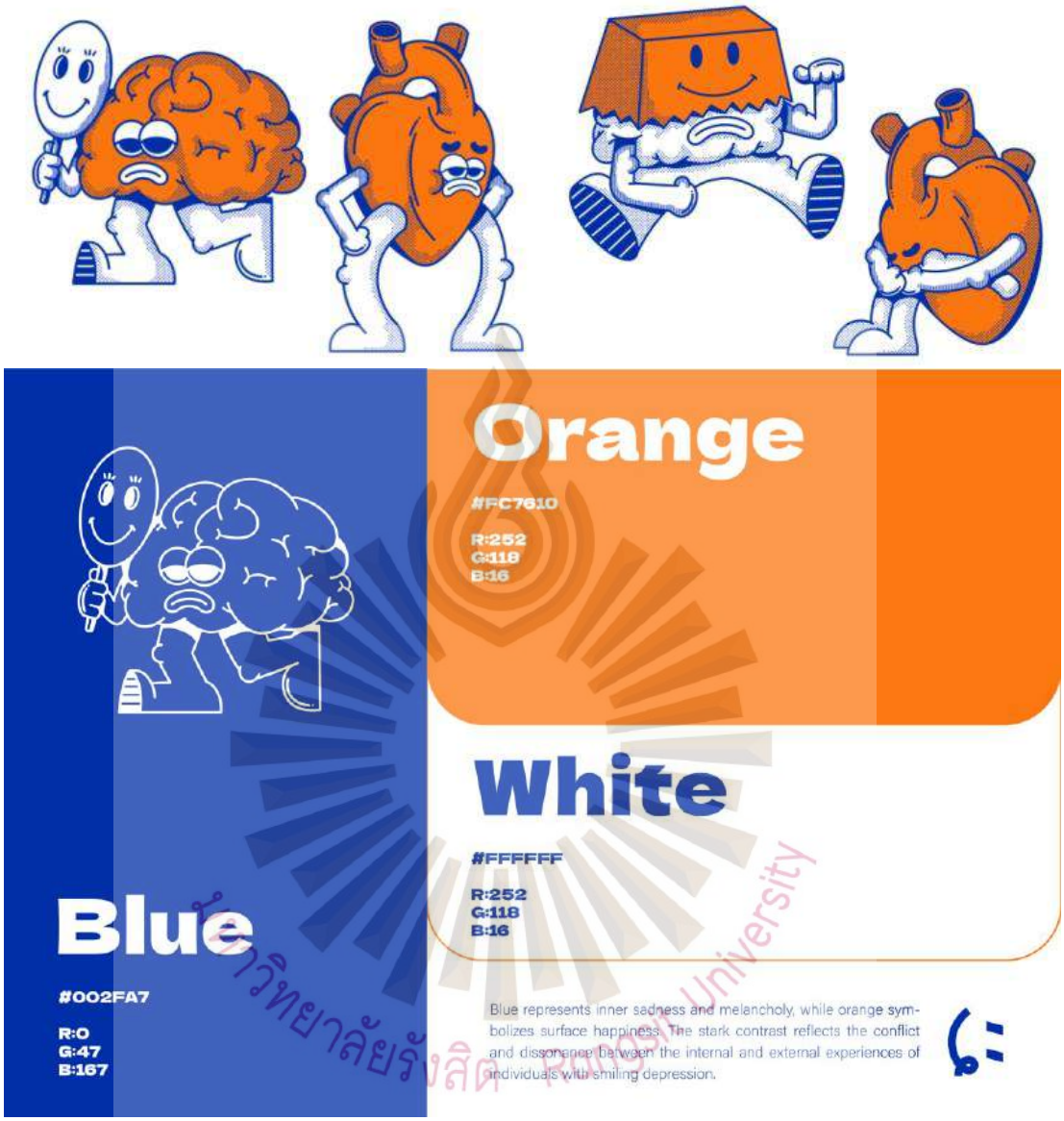

Figure 4.5 Illustration Final Design

Source:Researcher

Apply my theme name font design and mascot design to various support media to let people know about Smile Depression!

Figure 4.6 Illustration Posters

Figure 4.6 Illustration Posters (continued)

Figure 4.6 Illustration Posters (continued)

Source:Researcher

Figure 4.7 Supported media applications

Source:Researcher

4.3 Result

Through the communication campaign designed by researchers, a significant portion of the population has been educated about smile depression. The program's approach to presenting the topic in a cute and approachable manner has garnered positive reactions from viewers, fostering a relaxed atmosphere for learning about this serious issue. By utilizing cheerful colors as the main aesthetic, the communication campaign has effectively conveyed its message with minimal negative impact, promoting awareness and concern for depression among the general public.

Chapter 5

Conclusion and Recommendations

5.1 Conclusion

Ongoing research into depression continues to advance, promising a better understanding of the condition and improved treatment options in the future. As society progresses, so does our understanding of mental health issues like depression. There is a growing recognition of the importance of mental health in society, leading to increased efforts in mental health education and awareness campaigns.With the collective efforts of researchers, healthcare professionals, policymakers, and communities, there is optimism that mental health awareness will continue to rise. This increased awareness will not only lead to better support and resources for those affected by depression but also contribute to breaking down stigma surrounding mental illness.Looking ahead, it is hopeful that society will witness significant advancements in the treatment and management of mental health conditions, leading to improved overall mental well-being for individuals. As mental health becomes a more prominent focus in public discourse and policy initiatives, there is the potential for transformative breakthroughs in how we understand and address mental illness.

5.2 Recommendations

When it comes to the overall illustration aspect of the entire campaign, the results are still good. However, in today's competitive market environment, it may be a wise strategy to continually introduce more and more products. As market demands and consumer preferences continue to evolve, by increasing product variety an diversity, you can better satisfy your customers' needs while expanding your market share and increasing brand awareness.

In addition to maintaining good illustration results, consider implementing other strategies to enhance the effectiveness of the campaign. For example, collaborating with industry-related partners to launch special events or product series can attract more potential customers and enhance brand influence. Furthermore, continuously innovating and improving existing products, as well as introducing more novel products to the market, can continually capture consumer attention, maintain brand vitality, and enhance customer loyalty. Additionally, actively engaging with consumers on social media and online platforms, fostering closer interaction, gathering feedback and suggestions, and adjusting product strategies and campaign plans accordingly can better meet their needs and expectations.

While staying attuned to market dynamics, continuously optimizing and adjusting marketing strategies will help ensure the long-term success and sustainable growth of the campaign.

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