

## THE INFLUENCE OF CHINESE CALLIGRAPHY ON ANXIETY AND DIRECTED DEPRESSION IN PATIENTS WITH LIFE-RISING ILLNESSES IN HONG KONG.

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### ABSTRACT

Terminally ill patients in Hong Kong often report feeling anxious and depressed. According to studies, breast cancer patients who practiced Chinese calligraphy (CCH) had fewer severe symptoms. In other groups, many studies have shown comparable positive outcomes. In addition, the intervention may be a helpful adjunct therapy to alleviate symptoms and improve health in general. As a therapeutic aid, it reduces anxiety, improves mood and mental clarity, and sharpens the mind. Eight minutes of an intervention using Chinese calligraphy was associated with a significant decrease in participants' reported feelings of anxiety, despair, and stress. Patients in Hong Kong who were diagnosed with breast cancer received this procedure. Physiological markers like heart rate, breathing rate, and systolic blood pressure were all shown to be lower after the calligraphy session. Preliminary findings generated from a prior study indicate that calligraphy instruction improves several bodily systems and decreases psychotic symptoms in patients suffering from schizophrenia. Previous research had many flaws, the most notable of which were the different samples used and the small sample sizes. The present large-scale randomised, controlled trial examined the relationship between calligraphy and many psychological variables in individuals with a schizophrenia diagnosis. These variables included mood, quality of life, psychotic symptoms, emotions, cognition (including attention), and psychotic symptoms. Eight minutes of an intervention using Chinese calligraphy was associated with a significant decrease in participants' reported feelings of anxiety, despair, and stress.

**Keywords:** Chinese calligraphy writing, Mental Health in Hong Kong, Coordinate Depression, Stress Relief, Anxiety Reduction.

### INTRODUCTION

Anxiety is a common problem for people with breast cancer, and it may worsen their condition, make therapy less effective, and slow down the process of recovery. Researching the potential benefits of Chinese calligraphy as a culturally competent alternative treatment for breast cancer patients in Hong Kong was the driving force behind this research. The researchers wanted to know whether breast cancer patients who practiced Chinese calligraphy reported less anxiety and depression (Wang C Tang, 2024). Finding out whether Chinese calligraphy may help alleviate the anxiety and depression felt by breast cancer patients was the major goal of

this Hong Kong research. Ancient Chinese calligraphy is a beautiful art form that may help people overcome their fears and despair. Improving emotional control, managing stress, and general mental and emotional well-being are just a few of the many benefits of this practice, which involves focusing on relaxing and paying attention to quiet the mind. It has several beneficial health impacts, according to scientific studies. These include lowering heart rate, improving cognitive functions, and reducing muscular tension. Calligraphy is a wonderful way to relax the researcher's mind and connect with the here and now, two things that are crucial for dealing with stress. This is because perfecting the art of calligraphy demands undivided attention. Calligraphy may be considered a kind of mindfulness exercise that promotes attention, imagination, and letting go, all of which can help the researcher achieve a more peaceful state of mind. People who do calligraphy regularly to increase their resilience may find it easier to deal with the stresses of everyday life. Proper stress management has the potential to enhance one's mental and physical health, as well as one's view on life in general. About 296.97 million people in China were 60 years old or older as of the end of 2023, according to the National Bureau of Statistics of China. The proportion of this group, representing the whole population, was 21.1%. People aged 65 and over made up 15.4% of the overall population, or 216.76 million. Furthermore, there will be over 400 million people aged 60 and above by 2035, making constitute nearly 30% of the global population. This increase heralds a period when the median age of Chinese residents will reach an alarmingly high level. Forty million people in China's old population are either totally or partially unable to work due to chronic health issues, which affect about 35% of the population. This increase has made them very health conscious. Studies have shown that the COVID-19 epidemic is making the elderly sicker than ever. Those over 60 who are at high risk need extra care to ensure their physical and mental health (Wang, 2025).

## BACKGROUND OF THE STUDY

Psychosis, which is considered one of the most severe instances of mental disease, is distinguished by symptoms that are not only obvious but also persistent. These symptoms include disturbances in a wide range of mental skills, including comprehension, emotions, cognition, conduct, and a number of other mental capacities. Many mental health issues, such as schizophrenia and other psychoses, are linked to bipolar disorder and mental retardation. These conditions are also connected to mental retardation. There are a number of situations in which pharmaceutical treatment is unsuccessful, and also, it often leads to unfavourable side effects that people would rather not endure (Clarke, 2023). Treatments that do not need the use of drugs are available for the treatment of mental diseases. These treatments include art therapy, occupational therapy, and psychological treatment. These treatments may have the added benefit of being both cost-effective and adaptable, which might lead to better recovery results and overall quality of life. It is a kind of art therapy that lays more of an emphasis on the look of characters and the spatial arrangement of those characters than it does on the letters themselves. This treatment is also known as the Chinese calligraphy treatment, or CCT for short. This specific type of calligraphy is employed in the subject of art therapy, but it is also

used in the domains of health, behaviour therapy, and rehabilitation. It is conceivable that cognitive behavioural therapy (CBT) may help the researcher experience fewer negative feelings, a decrease in stress, an improvement in the researcher capacity to regulate the researcher emotions, and a more positive outlook on the world around the researcher. Counselling can achieve all these benefits. In a number of studies, it has been shown that CBT is an effective strategy for reducing feelings of stress and anxiety (Xu C Shen, 2023).

### **PURPOSE OF THE RESEARCH**

Research on Chinese calligraphy and mental health primarily aims to assess its therapeutic potential for improving mental health through studying its impact on reducing stress, emotional regulation, and meditation-like states of quiet focused concentration. Scientists are scouring the internet for proof that this accessible, affordable, and culturally significant art form helps people suffering from anxiety and sadness, including cancer patients and university students. Examining the benefits of Chinese calligraphy on reducing stress, regulating emotions, and contemplative states of tranquillity and concentration is the primary goal of the research into Chinese calligraphy and mental health conditions, particularly anxiety and depression. Scientists are trying to establish proof that this accessible, low-cost, and culturally relevant art form may help those suffering from loss and anxiety, including cancer patients and college students. Calligraphy, a kind of "artistic writing", continues to use all six of the foundational scripts that were developed over three thousand years ago to represent Chinese characters. Standard, Oracle Bone, Seal, Clerical, Cursive, and Running are only a few of the many writing styles.

### **LITERATURE REVIEW**

The study discovered that some individuals who participated in Chinese calligraphy had a reduction in feelings of anxiety and unhappiness in the future. Relaxing, maintaining attention, and gaining emotional control are all assisted by it. The practice might be beneficial for people of varying ages and health conditions because it establishes a connection between the body and the mind via the use of concentrated movement, breathe control, and creative expression. It is possible that levels of stress may reduce, and moods may also improve. In Hong Kong, a region in which traditional Chinese medicine is progressively integrating with Western therapeutic techniques, research has been conducted in order to determine whether or not Chinese calligraphy has the capacity to alleviate the social and psychological impacts of sickness. Only a little amount of research has been conducted on the effects that calligraphy has on the mental health of people who are nearing the end of their lives, particularly with regard to the feelings of worry and grief that they experience (Cao C Champadaeng, 2024). In the context of clinical or therapeutic settings, there is a dearth of research that investigates the particular pathways by which calligraphy may have positive impacts on health. Mindfulness-based treatments or more general methods of stress reduction have been the subject of a significant amount of study up to this point (Chen, 2023).

## RESEARCH QUESTION

What is the impact of Chinese calligraphy on patients with coordinate depression?

What is the effect of Chinese calligraphy on patients with coordinate depression through life-rising illnesses?

## RESEARCH METHODOLOGY

**Research design:** Quantitative data were analysed with SPSS version 25. Researchers used the odds ratio and the 95% confidence interval to assess the magnitude and direction of the statistical link. The researchers developed a statistically significant criterion at  $p < 0.05$ . Descriptive analysis identified notable attributes of the data. Quantitative techniques are often used to evaluate data obtained from polls, questionnaires, and surveys, in addition to data evaluated by computational statistical tools.

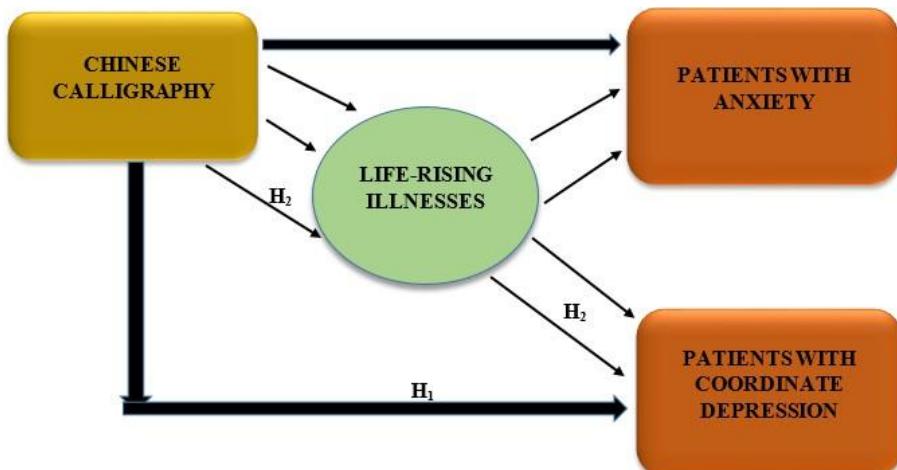
**Sampling:** The study used a straightforward sampling methodology. The research used questionnaires to gather its results. A total of 340 specimens were chosen with the Rao-soft method. Of the 585 questionnaires sent, 560 were returned; 75 were excluded due to incomplete responses. The research used 485 questionnaires.

**Data and Measurement:** The study mostly used questionnaire surveys for data collection. Part B used a 5-point Likert scale to evaluate the importance of various channels, both online and offline, whilst Part A gathered essential demographic information. The necessary data was obtained from many secondary sources, including internet databases.

**Statistical Software:** Microsoft Excel and SPSS 25 were used to conduct the statistical analysis.

**Statistical Tools:** Descriptive analysis was used to understand the fundamental characteristics of the data. The researcher must analyse the data using ANOVA.

## CONCEPTUAL FRAMEWORK



## RESULTS

**Factor Analysis:** A common use of Factor Analysis (FA) is to uncover latent variables within observable data. In the absence of definitive visual or diagnostic indicators, it is customary to use regression coefficients for assessments. In FA, models are crucial for success. The aims of modelling are to detect flaws, intrusions, and clear linkages. The Kaiser-Meyer-Olkin (KMO) Test is a technique for assessing datasets produced by multiple regression studies. The model and sample variables are deemed suitable. The data demonstrates redundancy, as shown by the figures. Decreased proportions enhance data understanding. The KMO output varies between zero and one. A KMO value between 0.8 and 1 indicates an adequate sample size. These are the permissible levels, according to Kaiser: The following approval criteria set out by Kaiser are as follows:

A pitiful 0.050 to 0.059, below average 0.60 to 0.69. Middle grades often fall within the range of 0.70-0.79. With a quality point score ranging from 0.80 to 0.89. They marvel at the range of 0.90 to 1.00. The results of Bartlett's test of sphericity are as follows:

approx. chi-square

df=190

sig.=.000

This proves that claims made for the sake of sampling are genuine. The significance of the correlation matrices was determined by researchers using Bartlett's Test of Sphericity. A number of 0.957 indicates that the sample is adequate, according to the Kaiser-Meyer-Olkin measure. The p-value from Bartlett's sphericity test is 0.00. The correlation matrix does not seem to be an identity matrix, as shown by a positive outcome of Bartlett's sphericity test.

**Table 1.** Testing for KMO and Bartlett's Sampling Adequacy Measured by Kaiser-Meyer-Olkin 0.957.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.957
Bartlett's Test of Sphericity	Approx. Chi-Square	3252.968
	df	190
	Sig.	.000

Furthermore, Bartlett's Test of Sphericity validated the extensive application of correlation matrices. The Kaiser-Meyer-Olkin measure of sample adequacy is 0.957. The researchers

conducted Bartlett's sphericity test, yielding a p-value of 0.00. The correlation matrix was declared ineffective due to a significant outcome from Bartlett's sphericity test.

## INDEPENDENT VARIABLE

**Chinese Calligraphy:** Calligraphy is an old art form in China that involves making expressive and aesthetically pleasing characters using a brush and ink. In the past, people would write these characters on silk or paper. As a fundamental means of self-expression for artists, it is considered the pinnacle of creative achievement in Chinese culture. In terms of conveying ideas, it is more than just a pragmatic approach. Compared to painting, it is held in greater esteem because of its deep connections to traditional spiritual rituals and intellectual ideas. The artist's style and skill are shown via the use of well-trained, fluid strokes as they construct and enhance different scripts using calligraphy (Liu, 2024). The name "calligraphy" comes from a Greek word that means "beautiful writing" or "drawing". In modern times, calligraphy may refer to either the practice of creating correctly formed letters or the decorative arrangement of those characters. Good handwriting differs from great handwriting in that it aims to make letters seem attractive by arranging them in a certain way. One of the best ways to learn about art and old civilisations is to study Chinese calligraphy, which has its own unique style. A source of great delight and national honour for the Chinese people, Chinese calligraphy is also an integral part of China's rich cultural history (Wei et al., 2025).

## MEDIATING VARIABLE

**Life-Rising Illnesses:** Although the medical field does not use the term "life-rising illnesses," the individual is likely referring to lifestyle-related illnesses. An individual's diet, the amount of physical activity they get, whether or not they smoke, and the amount of alcohol they consume are all examples of these factors (Peng et al., 2025). In terms of prevalence, the most common ones include cardiovascular disease, stroke, type 2 diabetes, obesity, and a number of malignancies. It is becoming more apparent that these disorders are rapidly turning into a worldwide health catastrophe as a result of the fast increase in incidence, which is connected to urbanisation and contemporary lifestyles. The increasing prevalence of lifestyle-related disorders poses a significant risk to the health of people all over the world. Problems with the heart, diabetes, obesity, and poor mental health are just some of the issues that might arise. To highlight the effect that poor eating habits, inadequate physical exercise, and chronic stress have on people as well as whole communities, the purpose of this research is to demonstrate the impact. An illness that lasts for an extended period of time and cannot be cured is said to be chronic and incurable. In the majority of cases, the symptoms may be alleviated by the use of medicine and other forms of treatment. Some examples of chronic health problems include diabetes, arthritis, hypertension, epilepsy, asthma, and other mental health disorders (Lin, 2023).

## DEPENDENT VARIABLE

**Patients with Coordinate Depression:** The term "coordinate depression" refers to the management of depression via the use of coordinated treatment, that is, collaborative care methods. This is of utmost significance for those who are afflicted with challenging or severe diseases, as well as those who are also dealing with other health concerns at the same time, such as cancer or persistent pain. It is the collaborative effort of care coordinators, primary care physicians, and specialists to ensure that patients adhere to their treatment plans, eliminate barriers that prevent them from receiving care, and monitor the efficacy of each patient's treatment. Those individuals who are sad and who have other health issues or who want more assistance may find that this all-encompassing technique is particularly useful. As part of a system-level intervention known as collaborative care, case managers facilitate the connection between individuals suffering from depression and other mood disorders and their primary care physicians as well as mental health professionals. This allows the individuals to get the necessary assistance. Regular testing for mood disorders is one of the goals of this partnership, which aims to simplify the process of identifying and diagnosing mood disorders. Adults who were sad performed worse on a leaping and landing test, walked more slowly, and had lower balance on a reverse walking test when compared to healthy control individuals. Individuals in the study were healthy. The results of a test that evaluates muscular tone indicate that those who are sad have a tendency to have arm muscles that are more rigid (Song et al., 2022).

**Relationship Between Chinese Calligraphy and Patients with Coordinate Depression:** There is a possibility that those who suffer from depression might find treatment via the practice of Chinese calligraphy. This art form requires concentration and coordinated movement, which may assist individuals in achieving a more balanced state of mind and body. A mental health intervention may be readily accessed and adapted to meet the researcher's specific requirements if the researcher are interested in receiving it. According to the findings of the research, the intervention is effective in enhancing people's levels of negative emotions, stress symptoms, and mood (Xiao et al., 2021). Due to the fact that it is an active kind of meditation, learning Chinese calligraphy may be beneficial for those who are sad since it helps them concentrate, synchronise their motions, and control their breathing. An increasing body of data shows that is especially true for patients who are also experiencing anxiety and other serious health difficulties at the same time or concurrently. The presence of long-term stress, physical discomfort, dread of dying, and mental or social isolation are characteristics that are often associated with the development of depression under these circumstances. A patient's mental health and their capacity to participate in their medical treatments may be negatively impacted if they experience persistent feelings of despair, pessimism, and a lack of drive. Those who work in the medical field might benefit from calligraphy as an interesting kind of exercise because of its rhythmic and organised character. This type of exercise stimulates movement of both the mind and the body (Clarke, 2023). In light of the above, the researcher came up with the following hypothesis: examine the connection between Chinese calligraphy and patients with coordinate depression.

$H_0$ : There is no significant relationship between Chinese calligraphy and patients with coordinate depression."

$H_1$ : There is a significant relationship between Chinese calligraphy and patients with coordinate depression."

**Table 2. H1 ANOVA Test.**

ANOVA					
Sum	Sum of Squares	df	Mean Square	F	Sig.
<b>Between Groups</b>	39588.620	236	5247.537	979.749	.000
<b>Within Groups</b>	492.770	248	5.356		
<b>Total</b>	40081.390	484			

This research yields substantial results. The F statistic is 979.749, attaining significance with a p-value of .000, which is below the .05 alpha threshold. This signifies the, " $H_1$ : There is a significant relationship between Chinese calligraphy and patients with coordinate depression" is accepted and the null hypothesis is rejected.

**Relationship Between Chinese Calligraphy and Patients with Coordinate Depression through Life-Rising Illnesses:** Those who suffer from chronic illnesses such as cancer may discover that practicing CCH reduces their feelings of anxiety, depression, and tension, as well as makes them more aware of their surroundings. By blending aesthetic engagement, regulated physical movements, and focussed attention, the practice brings about an improvement in both emotional and cognitive well-being, so contributing to the development of a serene mental state. Despite the fact that further study is required to evaluate whether or not it is effective as a formal treatment, there is evidence that it is beneficial for a number of diseases. Individuals who are afflicted with life-threatening illnesses, such as cancer, chronic organ failure, or other terminal conditions, frequently face significant physical challenges in addition to the emotional stressors of uncertainty, suffering, and social isolation. This, in turn, leads to an increased likelihood of experiencing coordinated depression (Xu C Shen, 2023). A close connection exists between having a disease and being depressed under these circumstances; both conditions have the potential to make individuals feel hopeless, helpless, and as though they have no purpose in life, which may be very detrimental to their health. Due to the fact that it satisfies both cultural and emotional requirements at the same time, Chinese calligraphy shows its true potential as a therapeutic art form in this regard. Think about completing attentive brush strokes if the researcher are experiencing feelings of sadness and wish to combat the feelings of exhaustion and withdrawal that come along with a depressed mood. This workout is one that is quiet and well-regulated. Writing has the potential to assist patients in achieving stability, concentration, and completeness, and it may progressively replace emotions of emptiness or of hopelessness. Self-control and determination are highly valued practices in traditional Chinese medicine. Additionally, it dislikes displaying emotion in public, particularly when it is at

the speech stage. One of the most essential ways to transmit knowledge about and respect for traditional arts and culture is via the art of calligraphy, which has a distinctively Chinese style. In addition to being a source of pride and happiness for the Chinese people, it contains significant aspects of China's intellectual and cultural history (Chen, 2023). Following the aforementioned dispute, the researcher proposed the following hypothesis, which sought to examine the relationship between Chinese Calligraphy and Patients with Coordinate Depression through Life-Rising Illnesses.

“ $H_0$ : There is no significant relationship between Chinese Calligraphy and Patients with Coordinate Depression through Life-Rising Illnesses.”

“ $H_1$ : There is a significant relationship between Chinese Calligraphy and Patients with Coordinate Depression through Life-Rising Illnesses.”

**Table 3. H2 ANOVA Test.**

ANOVA					
Sum	Sum of Squares	df	Mean Square	F	Sig.
<b>Between Groups</b>	39588.620	195	5655.517	1055.883	.000
<b>Within Groups</b>	492.770	289	5.356		
<b>Total</b>	40081.390	484			

The results of this investigation will be substantial. The F statistic is 1055.883, indicating significance with a p-value of .000, which is below the .05 alpha threshold. This signifies the, “ $H_1$ : There is a significant relationship between Chinese Calligraphy and Patients with Coordinate Depression through Life-Rising Illnesses” is accepted and the null hypothesis is rejected.

## DISCUSSION

The overall purpose of the research is to enhance the mental health of college students by collecting, analysing, and rating a variety of techniques in a methodical manner. The foundation for this research was a comprehensive and detailed evaluation of the existing literature. The analysis that was conducted identified a variety of different possible techniques to improving mental health. These strategies include, but are not limited to, therapy for mental health issues, social support, positive thinking, physical activity, and creative interests. CCH emerges as a creative initiative that is driven by social motivation. Following this chapter, The researcher's will have a look at the particular CCH talents that scientific research has shown to be effective in reducing mental health problems. In order to give a compelling justification for a certain method, this study intends to make use of positive literary content, seal script, tracing as a fundamental technique, and painstakingly selecting characters with desirable geometric qualities. According to the findings of the research, the incorporation of these components into calligraphy treatment could be beneficial in terms of improving mental health and reducing the

symptoms of mental illness. Through a comprehensive review and analysis of the existing research, the purpose of this study was to determine whether or not calligraphy treatment is effective in reducing the symptoms of mental illnesses. After careful consideration, a total of twenty-one articles were included in the collection since they were judged appropriate for doing so. Cognitive-cognitive therapy, also known as CCT, has been proven in the majority of research to have the potential to assist individuals who are experiencing neuropsychiatric symptoms in enhancing objective evaluations of their mental function and in modifying specific behaviours.

## CONCLUSION

Residents of Hong Kong suffering from terminal illnesses, such as breast cancer, report feeling less anxious and melancholy after receiving CCH. Many studies with CCH suggest that it can improve mood and cognitive abilities, lower anxiety and sadness levels, and slow down internal biological processes. If these people are serious about improving their health and wellness, CBT is a great alternative treatment and intervention option that they should think about. Patients in Hong Kong undergoing treatment for diseases including breast cancer who participated in Chinese calligraphy therapy reported much less anxiety and depression after treatment. The purpose of this research was to examine the impact of calligraphy on the mental health of schizophrenia patients, namely their mood, quality of life, psychotic symptoms, attention, and other cognitive and emotional states. Schizophrenics who took part in calligraphy exercises saw an increase in their attention and cognitive functioning thereafter. Conversely, these outcomes were comparable to those associated with TAU, or occupational therapy. Although the number of psychotic symptoms was higher in the control group at both the post-test and the follow-up, the calligraphy group showed a smaller increase in positive symptoms at the latter evaluation. When compared to the TAU group, this one had a smaller rise in favourable symptoms. There is a high probability that the COVID-19 pandemic affected the outcome measures, as part of this research was carried out during the pandemic. Particularly relevant here are assessments of psychological well-being (such as emotional issues).

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