

THE IMPACT OF CHINESE CALLIGRAPHY ON ANXIETY AND COORDINATE DEPRESSION IN PATIENTS WITH LIFE-RISING ILLNESSES IN HONG KONG.

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ABSTRACT

People who are suffering from terminal diseases in Hong Kong often experience feelings of anxiety and sadness. Through the practice of Chinese calligraphy handwriting (CCH), individuals with breast cancer were able to experience a reduction in their symptoms, as shown by research. Different studies have demonstrated similar favourable results in different groups. Furthermore, the intervention has the potential to be an advantageous supplementary treatment for the purpose of reducing the suffering that is associated with the condition and enhancing overall wellness. It acts as a therapeutic aid, calming the nervous system, enhancing emotional states, and improving cognitive skills for the individual. A substantial reduction in the levels of anxiety, despair, and stress that were reported by the participants was connected with an eight-minute intervention that used Chinese calligraphy. Breast cancer patients in Hong Kong underwent this intervention. After the calligraphy session, it was seen that physiological indicators such as the heart rate, breathing rate, and systolic blood pressure were all lower than they had been before. Calligraphy training has been shown to improve various body processes and decrease psychotic symptoms in individuals who suffer from schizophrenia, according to preliminary results, which were derived from earlier research. The study that was done in the past had several shortcomings, the most significant of which are the small sample sizes and diverse samples that were employed. In the current large-scale randomised controlled investigation, psychological factors, including mood, quality of life, psychotic symptoms, emotions, cognition (including attention), and psychotic symptoms, were investigated in relation to calligraphy in patients diagnosed with schizophrenia.

Keywords: Chinese Calligraphy therapy, Anxiety reduction, Coordinate depression, Stress management.

INTRODUCTION

Anxiety is a major issue among breast cancer patients, and it has the potential to make their illness worse, reduce the effectiveness of their treatment, and slow down their recovery. The researchers in this study set out to learn more about the cultural norms of Hong Kong's breast cancer patients and whether or not Chinese calligraphy may be a helpful alternative treatment. The experiment aimed to determine whether Chinese calligraphy could reduce the levels of anxiety and depression associated with breast cancer (Carr, 2024). The primary objective of this

study conducted in Hong Kong was to determine whether or not Chinese calligraphy may be beneficial in reducing the feelings of worry and sadness that are associated with breast cancer. The art form of ancient Chinese calligraphy has the potential to alleviate feelings of fear and hopelessness. This technique, which involves concentrating on relaxing and paying attention in order to quiet the mind, offers a number of advantages, including improved emotional control, stress management, and overall mental and emotional well-being. Studies conducted within the scientific community have shown that it has a number of positive effects on health, including the reduction of muscle tension, the improvement of cognitive processes, and the slowing down of the heart rate. The practice of calligraphy is an excellent method for getting in touch with the present moment and calming the researcher's mind, both of which are essential for managing stress. This is due to the fact that calligraphy requires a great deal of concentration. Because it places an emphasis on concentration, creativity, and letting go, calligraphy may be considered a kind of mindfulness practice that may assist the researcher in achieving a more relaxed state of mind. Those who engage in calligraphy on a regular basis to enhance their capacity for coping may be better able to cope with the stress that they experience on a daily basis. If someone is able to properly manage stress, it is possible that their mental and physical health may improve, and they may also have a more optimistic outlook on life. At the end of the year 2023, the National Bureau of Statistics of China estimated that there were 296.97 million individuals in China who were aged 60 or older. 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 people. Furthermore, there will be over 400 million people aged 60 and above by 2035, making up more than 30% of the world's overall population. This increase will signal the beginning of a period in China during which people will age at an alarmingly rapid rate. Approximately thirty-five percent of China's elderly population suffers from chronic health conditions, and forty million of them are either unable to work or are only able to work in part. Because of this, they are much more concerned about their health. According to the findings of several studies, the COVID-19 pandemic is causing an increase in the number of elderly individuals who are experiencing significant health issues. People who are sixty years old or older who are regarded to be at high risk need more care in order to maintain the health of both their bodies and their brains (Liu et al., 2025).

BACKGROUND OF THE STUDY

One of the most serious mental illnesses, psychosis is characterised by signs that are not only noticeable but also persistent. Disturbances in understanding, emotions, cognition, behaviour, and a variety of other mental capacities are included among these symptoms. There are a number of mental health diseases, including schizophrenia and other psychoses that are linked to mental retardation and bipolar disorder (Shan C Xu, 2025). There are several instances in which pharmacological therapy is ineffective, and it usually results in undesirable side effects that individuals do not like to experience. There are a variety of non-drug therapies available for mental illnesses, including psychological treatment, occupational therapy, and art therapy. It's possible that these treatments are not only adaptable and cost-effective but also beneficial in

terms of enhancing recovery results and overall quality of life. The Chinese calligraphy treatment, also known as CCT, is a kind of art therapy that places more of an emphasis on the appearance of characters and the spatial arrangement of those characters than it does on the letters themselves. In addition to its use in art therapy, this particular style of calligraphy is also utilised in the fields of health, behaviour therapy, and rehabilitation. It is possible that cognitive behavioural therapy (CBT) can assist the researcher in experiencing fewer negative feelings, a reduction in stress, an improved ability to manage the researcher's emotions, and a more optimistic perspective on the world around the researcher. There have been a number of studies that have shown that CCT is an effective method for alleviating stress and anxiety (Shi, 2023).

PURPOSE OF THE RESEARCH

The primary goal of research on Chinese calligraphy in relation to anxiety and depression is to assess its therapeutic intervention effectiveness in improving mental health. This is accomplished by examining the effects of Chinese calligraphy on reducing stress, regulating emotions, and states of quiet and focused attention that are similar to meditation. Researchers are looking for concrete proof that this art form, which is straightforward to access, inexpensive, and culturally relevant, is beneficial to those who suffer from anxiety and sadness. Some examples of these people are cancer patients and college students. The primary objective of the research being conducted on Chinese calligraphy and mental health conditions such as depression and anxiety is to assess the therapeutic intervention potential of Chinese calligraphy for improved mental health. This will be accomplished by analysing the effects of Chinese calligraphy on stress reduction, emotional regulation, and meditative states of calmness and concentration. This low-cost, easily accessible, and culturally significant art form is being investigated by researchers in an effort to provide conclusive proof that it may be beneficial to persons who suffer from anxiety and bereavement, such as college students and people who have cancer. Although it is considered a kind of "artistic writing", calligraphy continues to make use of all six of the fundamental scripts that were developed more than three thousand years ago to produce Chinese characters. There are a number of Oracle Bone, Seal, Clerical, Cursive, Running, and Standard are among the several writing styles.

LITERATURE REVIEW

As a result of participating in Chinese calligraphy, the study revealed that some participants had a reduction in feelings of anxiety and dissatisfaction later on. The ability to relax, maintain attention, and manage the researcher's emotions are all aided by it. Due to the fact that it integrates the body and mind via concentrated movement, controlled breathing, and creative expression, the practice may be beneficial for people of all ages and whatever health issues they may be experiencing (Hung, 2024). Stress may be reduced, and mood can be improved as well. For the purpose of determining whether or not Chinese calligraphy may assist with the social and psychological impacts of illness, research has been conducted in Hong Kong, a city in which traditional Chinese medicine is growing more prevalent alongside Western therapy. Not a lot of

research has been done on how calligraphy affects the mental health of individuals who are nearing the end of their lives, particularly their feelings of worry and depression. In clinical or therapeutic settings, there is a dearth of research that investigates the particular pathways via which calligraphy may provide a positive impact on health. Up until now, many studies have concentrated on mindfulness-based treatments or more general methods of stress reduction (Liao et al., 2023).

RESEARCH QUESTION

What is the impact of Chinese calligraphy on patients with anxiety?

RESEARCH METHODOLOGY

Research design: Quantitative data analysis was performed using SPSS version 25. The researchers used the odds ratio and the 95% confidence interval to assess the magnitude and direction of the statistical link. The researchers used a criteria considered statistically significant at $p < 0.05$. An analytical assessment elucidated the fundamental characteristics of the data. Data obtained via surveys, polls, and questionnaires, along with data analysed using computational tools for statistical evaluation, are often assessed using quantitative approaches.

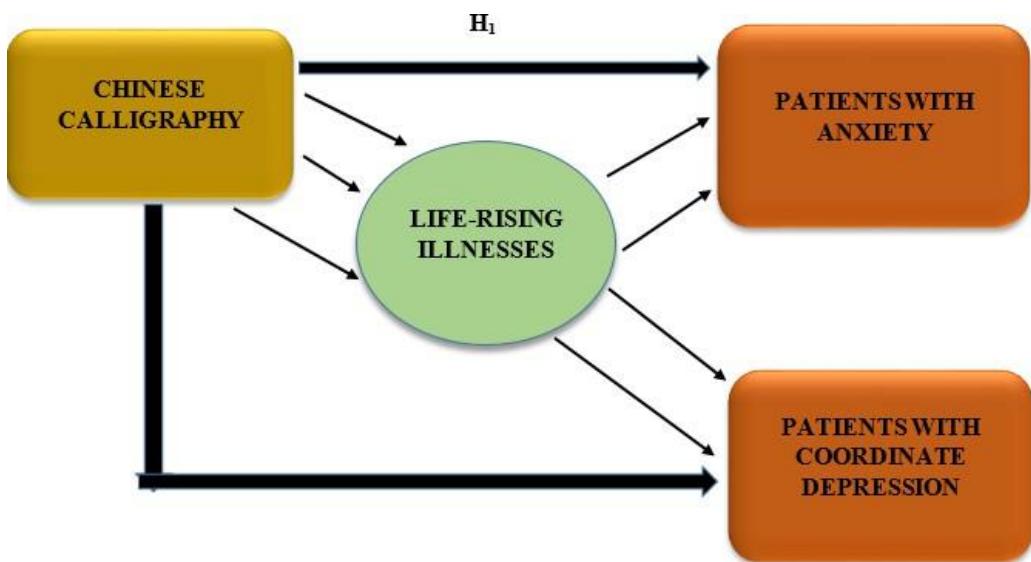
Sampling: The study used a simple sampling technique. Data for the research was gathered via questionnaires. The Rao-soft program determined that 340 people would make up the sample. There were 585 questionnaires sent; 560 were collected; and 75 were not included because they were not filled out completely. The research used a total of 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. Essential information was obtained from several secondary sources, including internet databases.

Statistical Software: The statistical analysis was conducted using Microsoft Excel and SPSS 25.

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: One typical use of Factor Analysis (FA) is to identify hidden variables in observable data. It is common practice to utilise regression coefficients to assign ratings when there are no easily visible visual or diagnostic signs. Success in FA is highly dependent on models. Finding mistakes, intrusions, and obvious relationships are the goals of modelling. Datasets produced by multiple regression analyses may be assessed using the Kaiser-Meyer-Olkin (KMO) Test. That the model and variables in the sample are representative is confirmed by them. As can be seen from the figures, there is data duplication. Data may be better understood with reduced proportions. The result from the KMO is a number between 0 and 1. An appropriate sample size is defined as a KMO value between 0.8 and 1. These are the permissible boundaries, according to Kaiser: Here are the following approval conditions set by Kaiser:

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 validates the authenticity of assertions made just for sampling reasons. Researchers used Bartlett's Test of Sphericity to determine the significance of the correlation matrices. The Kaiser-Meyer-Olkin measure indicates that a value of 0.960 denotes adequate sample size. Bartlett's sphericity test yields a p-value of 0.00. A favourable result from Bartlett's sphericity test indicates that the correlation matrix is not an identity matrix.

Table 1. Testing for KMO and Bartlett's Sampling Adequacy Measured by Kaiser-Meyer-Olkin 0.960.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.960
Bartlett's Test of Sphericity	Approx. Chi-Square	3252.968
	df	190
	Sig.	.000

The correlation matrices were then confirmed as statistically significant by Bartlett's Test of Sphericity. The Kaiser-Meyer-Olkin sample adequacy is satisfied with a score of 0.960. The researchers obtained a p-value of 0.00 via Bartlett's sphericity test. The significant outcome of Bartlett's sphericity test indicated that the correlation matrix was not valid.

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. These characters are traditionally written on silk or paper. Within the context of Chinese culture, it is regarded as the most high-level form of artistic expression and an essential medium through which artists may express themselves. When it comes to communication, it is more than simply a practical method. It has profound linkages to traditional spiritual practices and intellectual concepts, and it is acknowledged with a higher level of respect than painting (Xiang C Gee, 2022). When an artist creates and improves various types of script via the use of calligraphy, they demonstrate their style and level of competence by using strokes that are smooth and well-trained. A Greek term that means "beautiful writing" or "drawing" is where the word "calligraphy" originates from. Both the production of properly formed letters and the ornamental arrangement of those characters are considered examples of calligraphy in today's world. When compared to excellent handwriting, it is distinguished by the fact that it attempts to make letters seem nice by arranging them in a certain manner. The art of Chinese calligraphy, which has its own distinct style, is an excellent approach to educating oneself about art and gaining knowledge about ancient civilisation. Chinese calligraphy is not only an essential component of China's intellectual and cultural heritage, but it is also a source of joy and pride for the Chinese people. Calligraphy, often known as the art of the line, is one of the most ancient forms of abstract art that can be seen anywhere in the globe. Despite its apparent simplicity, this graphic element could really have a more profound significance. Calligraphy, which has been practised in China for more than three thousand years, is the art form that has most powerfully shown the metaphorical power of the line (Wu et al., 2024).

DEPENDENT VARIABLE

Patients With Anxiety: "Patients' anxiety" refers to the dread, concern, or unease that a certain patient experiences. Both a natural reaction to stress and an indication of a more serious anxiety problem might be present in this situation. There are a number of physical manifestations of worry, including a rapid pulse, disinterest, or difficulty focussing. Issues with one's overall health, concerns about particular illnesses, or the unpleasant process of obtaining medical attention might be the source of this anxiety. However, if the researcher are experiencing severe or persistent anxiety, the researcher should seek the assistance of a mental health professional. Anxiety is something that many people experience at some point in their lives. Fear, concern, and dread are the common symptoms of anxiety. A racing heartbeat, profuse perspiration, and high levels of general anxiety are all potential side effects. The anxiety that people who suffer from anxiety disorders experience is persistent and, on sometimes, even becomes worse (Hung, 2022).

Relationship Between Chinese Calligraphy and Patients with Anxiety: Chinese calligraphy has gained popularity recently as a means for those with terminal or chronic health conditions to find relaxation. There is a possibility that practicing calligraphy, which requires concentration, calm hand movements, and repeated brush strokes, will assist the researcher in regulating the researcher's emotions and entering a state of meditation. Mindfulness training allows patients to temporarily let go of their harmful notions, which in turn helps them feel more at peace and provides them with a fresh perspective. Individuals who are nervous and anxious, impatient, or worry too much may discover that writing with a brush and ink makes them feel better. This is the case for some people. A decrease in physiological arousal and a slowing down of cognitive processes are both effects of this method. By using calligraphy as a replacement for traditional professional therapy, individuals who are experiencing mental stress may find relief (Li et al., 2022). Not only is it a creative technique to let go of tension, but it is also culturally significant and non-intrusive. Patients in Hong Kong may relate to calligraphy because it resonates with their deeply established cultural identity and ancient Chinese rites. It preserves cultural traditions and offers therapeutic benefits. The beauty of Chinese calligraphy, in addition to its cultural value, has been shown to have the potential to be used as a treatment for anxiety disorders. The practice of brush strokes, which is both artistic and systematic, is said to have the potential to help calm the mind and ease mental tension. This is because the practice involves concentration, tolerance, and slow, deliberate motions. By drawing figures over and over again on purpose, people who suffer from anxiety are able to redirect their attention away from their concerns and towards an organised activity that helps them reduce their worry. The researcher may achieve a state of calmness similar to that of meditation and mindfulness by incorporating this kind of physical focus into the researcher's practice. Another benefit of learning calligraphy is that it can make the researcher feel capable and accomplished. This type of practice can be beneficial in reducing the emotions of helplessness that are commonly associated with stress (Yue et al., 2023). Consequent to the above discussion, the researcher posited the following hypothesis to assess the correlation between Chinese calligraphy and patients with anxiety.

H_0 : There is no significant relationship between Chinese calligraphy and patients with anxiety.”

H_1 : There is a significant relationship between Chinese calligraphy and patients with anxiety.”

Table 2. H1 ANOVA Test.

ANOVA					
Sum	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39588.620	164	5245.524	1001.819	.000
Within Groups	492.770	320	5.236		
Total	40081.390	484			

There will be significant findings from this study. A p-value of .000, below the .05 alpha level, achieves significance with an F value of 1001.819. This signifies the “ H_1 : There is a significant relationship between Chinese calligraphy and patients with anxiety” is accepted and the null hypothesis is rejected.

DISCUSSION

The purpose of this research is to develop successful solutions by methodically analysing, integrating, and ranking different strategies that are designed to promote college students' mental health. The foundation for this research was a comprehensive and in-depth analysis of the relevant literature. This research identified several effective strategies and methods for enhancing mental health. These strategies and methods include social support, mental health care, positive thinking, physical exercise, and creative interests. CCH emerged as an artistic intervention with a socially driven foundation. This chapter is followed by an examination of the particular characteristics of CCH skills that lead to the reduction of mental health difficulties in the research. The purpose of this study is to provide a compelling case in support of a particular approach that incorporates positive literary content, makes use of seal script, implements tracing as a core methodology, and methodically picks characters with beneficial geometric qualities. According to the findings of the research, the incorporation of these components within the framework of calligraphy treatment in a careful and methodical manner has the potential to improve mental health and reduce signs of mental illness. An exhaustive literature evaluation and analysis was conducted for the purpose of this research, which was to determine whether or not calligraphy treatment is effective in reducing the symptoms of mental illnesses. Following careful consideration, twenty-one studies were considered appropriate for inclusion in the compilation. According to the majority of research, cognitive-cognitive therapy (CCT) has the potential to enhance objective evaluations of mental function and change specific behaviours in people who are experiencing neuropsychiatric symptoms.

CONCLUSION

After receiving CCH, persons in Hong Kong who are afflicted with terminal conditions, such as cancer of the breast, report seeing a reduction in their levels of anxiety and concomitant sadness. Several studies have shown that CCH has the potential to improve mood and cognitive function, lower depression and anxiousness levels, and slow down the natural processes that occur inside the body. CBT is an excellent alternative intervention and treatment method that should be considered by these individuals if they are interested in enhancing their overall health and well-being. Following their participation in Chinese calligraphy therapy, patients in Hong Kong who were having treatment for illnesses such as breast cancer reported significantly reduced levels of anxiety and sadness throughout their treatment. In this study, the researchers investigated the effects of calligraphy on the mood, quality of life, psychotic symptoms, cognition (including attention), and emotions (such as melancholy, worry, and stress) of patients who suffer from schizophrenia. After participating in activities involving calligraphy, persons with schizophrenia reported an overall improvement in their attention and general cognitive abilities. On the other hand, these results were equivalent to those gained with occupational therapy (TAU). Even though they had a greater number of psychotic symptoms at the post-test and follow-up, persons in the calligraphy group had less of a rise in positive symptoms at the follow-up assessment. This was in contrast to the TAU group, which showed a greater increase in positive symptoms. Due to the fact that a component of this study was conducted during the COVID-19 pandemic, there is a strong likelihood that the outcome measures were impacted by the pandemic. This is especially true for those measures that evaluated mental health (for example, emotional difficulties).

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