

Creative Arts Therapy on the Mental Health of Students in Smoke-free Universities

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Abstract: This study explored the mental health of students in smoke-free universities and the influence of creative arts therapy during COVID-19 pandemic period. 1) The survey was conducted from March to April, 2020, and students in smoke-free universities were invited to fill out and forward the questionnaire through social software such as QQ and WeChat. The subjects of the survey are 800 students studying in smoke-free colleges and universities in South China. 2) The experimental research method was adopted. 40 students in smoke-free universities suffering from psychological stress and depression caused by COVID-19 pandemic were divided into 20 experimental groups and 20 control groups. The control group received no intervention treatment, while the experimental group received creative arts therapy. The survey data of mental health of students in smoke-free universities, mental health assessment standard data and self-esteem scale (SES) were observed. Results: ① A total of 850 questionnaires were collected, of which 839 were valid, and the effective response rate was 98.7%. As for the scores of the new psychological status of students in smoke-free universities during covid-19 pandemic period and mental health of students in smoke-free universities, the slight degree accounted for the highest proportion (39.7%), followed by the moderate degree of 34.2%. And 47% of the respondents felt lonely, decadent, irritable, emotionally fluctuating and difficult to concentrate. ② the results of self-esteem scale (SES) showed that there was no significant difference between the two groups before intervention ($t=1.782$, $P=0.08>0.05$). After intervention, the score of the study group was 42.74 ± 2.69 points, which was significantly higher than that of the control group (36.11 ± 4.58 points), and the difference was statistically significant ($Z=-1.192$, $P=0.04<0.05$). Conclusion: about 53% of the respondents were in good mental health during the epidemic period, and they were able to adjust themselves even if they were in slightly bad mood. However, 47% of the respondents felt lonely,

decadent, irritable, emotionally fluctuating and difficult to concentrate. After the intervention of creative arts therapy, the scores of SES indicated that students in smoke-free universities' self-worth and self-acceptance were increased, showing the release of anxiety and mental stress to a certain extent.

Keywords: creative arts therapy; university students; mental health; smoke-free

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INTRODUCTION

At present, COVID-19 pandemic is still spreading around the world, and the epidemic situation in China is generally controllable. However, sporadic and mass cases still occur frequently in China, and the risk of imported cases persists¹. Therefore, the epidemic prevention work should not be relaxed at all. Students in smoke-free universities in all regions and universities in China have basically returned to school. Since the outbreak of the epidemic, students in smoke-free universities have been studying and living at home for half a year, and have experienced a special and long period. The students in smoke-free universities live at home for a long time, and the network classroom is sedentary. As a result, the students in smoke-free universities' ability of social activities drops suddenly, and their learning tasks and life planning are difficult to implement smoothly. Under great pressure, the students in smoke-free universities may show negative emotions such as restlessness and anxiety due to the extreme lack of security^{2,3}. University campus health issue (smoke-free and tobacco control) is important because of the study showing that measured the effects of cigarillo packaging colors and flavor descriptors on appeal and perceived risk among 2818 young adults. Conclusions show that colors and flavor descriptors on cigarillo packaging increased appeal and decreased perceived addictiveness. Restricting color and flavor descriptors on packaging may reduce their appeal⁴. In another research found that investigated college students' exposure to and participation in tobacco-related social media. It found out that students with more racial/ethnic minorities, social media users, and more severe

depressive symptoms are more likely to report support for participation⁵.

Creative arts therapy (CAT)⁶ is based on the psychology of human development in the process of psychotherapy. Through the combination of creative processes such as visual arts, drama, music, dance and movement, and free writing, participants can express or talk about emotions that are difficult to convey through written or oral communication through artistic works or forms, thus bringing them healing and hope and making them feel the meaning of survival^{7,8}.

While paying close attention to the epidemic situation and students in smoke-free universities' studies, colleges and universities should also pay close attention to the situation of mental health of students in smoke-free environment, understand their various needs during the epidemic period, create conditions for students in smoke-free universities to resume normal study and life, and successfully realize their personal plans⁹. Therefore, this paper used creative arts therapy to investigate students in smoke-free universities in South China, with the aim of reducing their anxiety and releasing their pressure¹⁰.

METHODOLOGY

Research objects and methods

① The survey was conducted from March to April 2020. Through social networking software such as QQ and WeChat, students in smoke-free universities were invited to fill out and forward questionnaires. The survey was conducted among 800 students in smoke-free universities of South China.

② 40 students in smoke-free universities with psychological stress and depression caused by

COVID-19 pandemic were divided into experimental group and control group. Patients in the control group received no intervention, while those in the experimental group received creative arts therapy. The following measures were taken from April to July 2020:

(1) Contact creative arts therapy: free painting and visual arts creation, drama, music, dance and movement and free writing, etc. Combined with the specific works selected by therapists and through participating in the adjustment of inner feelings, the students in smoke-free universities can adjust their physical and mental perception and cognition, and channel their emotions¹¹.

(2) Free expression: case discussion and collective discussion with/without theme¹². Participants can experience themselves through visual arts creation, drama, music, dance and movement, free writing or other art forms, freely express their creativity¹³ as well as their inner potential under the guidance of therapists, and make reasonable behavior adjustments.

(3) Creative arts therapy: The research team is composed of professional psychologists, and doctors, college teachers and therapists who have received creative arts therapy and have been engaged in Drama, Dance, Art and Writing Therapy and other specialties for more than 20 years and more. The team analyzed the problems of students in smoke-free universities and chose themes. Through the understanding and expression of free and guiding theme and creation, and the cooperation of research team with external compensation and stimulation of different art forms, the deep adjustment of superego and ability as well as the unity of spirit can be realized^{14,15}.

Survey Tools

Mental health survey

On the basis of Kessler's six mental disorders scale¹¹ and related research, this paper designed and modified the mental health evaluation problem¹⁶. Pre-investigation showed that the content was effective. Finally, a total of 10 mental health assessment questions were set

up. According to the five-level scale, the mental health symptoms included in the scale are¹⁷: "unable to live normally", "irritable", "decadent", "worried about family", "still nervous about epidemic situation", "worried about the future", "lonely", "communication barrier", "emotional fluctuation, cynicism" and "inattention". According to the reliability and validity analysis of the questionnaire: the value of Cronbach alpha after overall standardization was equal to 0.72, indicating good credibility; KMO statistic was 0.87, greater than 0.5, indicating good structural validity of the questionnaire. The significance of Bartlett's sphericity test was 0.00, less than 0.01, indicating that the data is in good condition.

Mental health evaluation standard

The Likert five-level scale^{17,18} was adopted, and the mental health status was divided into: "1" extremely consistent, "2" quite consistent, "3" generally consistent, "4" not very consistent, and "5" extremely inconsistent. The total score of the scale was 10-50 points, with scores of 10-20 for serious degree, scores of 20-30 points for moderate degree, scores of 30-40 points for slight degree, and scores of 40-50 points for healthy status.

Self-Esteem Scale (SES)^{19,20}, which was compiled by Rosenberg and revised by Wang Xiangdong, was used to evaluate students in smoke-free (tobacco control) universities' self-worth and self-acceptance. The scale consists of 10 items (including 5 reverse scoring items), with 1-4 grades (representing "extremely consistent", "consistent", "inconsistent" and "extremely inconsistent" in turn), and a total score of 10-40 points. The higher the score is, the stronger the self-esteem is²¹.

Statistical Methods

The questionnaire data is first imported into Excel table for preliminary screening and processing. Spss22.0 and StataSE15 are used to further analyze the data.

RESULTS

Scores of Students in Smoke-Free Universities' Psychological Status and Mental Health of Students in Smoke-Free Universities during the Period of Covid-19

A total of 800 questionnaires were collected, of which 791 were valid, with an effective response rate of 98.9%. The scores of students in smoke-

free universities' psychological status (see Table 1) and mental health of students in smoke-free universities during the period of Covid-19 accounted for the highest proportion (39.7%), followed by the moderate degree of 34.2%. 47% of the respondents felt lonely, decadent, irritable, emotionally fluctuating and difficult to concentrate. See Table 2 for details.

Table 1
Psychological Status of Students in Smoke-Free Universities during Covid-19

Item	Minimum	Maximum	Average	Standard deviation
Unable to enjoy daily life at present	1	5	3.29	1.25
Feel irritable at home	1	5	3.12	1.30
Feel decadent at home	1	5	2.89	1.30
Worried about parents or family (economy, health)	1	5	3.23	1.24
Feeling nervous about COVID-19's lungs in the past two weeks	1	5	3.58	1.03
Worried about one's future	1	5	2.91	1.33
Feel lonely at home	1	5	2.95	1.33
Feeling poor communication with others in the past two weeks	1	5	3.61	1.17
Rapidly emotional fluctuation and somewhat cynical in the past two weeks	1	5	3.61	1.23
Feeling difficult to concentrate and make decisions and having poor self-control in the past two weeks,	1	5	3.04	1.30

Table 2
Overall Level Score of Mental Health of Students in Smoke-Free Universities (n=791)

Level	Score	Persons	Constituent ratio
Serious	10-20	101	12.8%
Moderate	20-30	271	34.2%
Slight	30-40	314	39.7%
Healthy	40-50	105	13.3%

Comparison of Self-Esteem Scale (SES) Scores

The results showed that there was no significant difference in the scores of self-esteem scale between the study group and the control group before intervention (t=1.782, P=0.08>0.05). After

intervention, the score of the study group was 42.74±2.69 points, which was significantly higher than that of the control group (36.11±4.58 points). After rank sum test, the difference between the study group and the control group was statistically significant (Z =-1.192, P = 0.04 < 0.05). See Table 3 for details.

Table 3
Comparison of Scores of SES ($\bar{x}\pm S$)

Group	Before intervention	After intervention
Research group	37.58±3.80	42.74±2.69
Control group	36.78±4.26	36.11±4.58
T	1.782	1.065
P	0.08	0.004

CONCLUSION

The purpose of this study is to understand the mental health status of students in smoke-free universities during COVID-19 pandemic. Based on the original theory and related research, a questionnaire was designed to fully understand the mental health status of students in smoke-free universities at a specific stage²². The results showed that about 53% of the subjects were in good mental health during the epidemic, and they were able to adjust themselves even if they had mild emotional disorder. However, 47% of the respondents feel lonely, decadent, irritable, emotionally fluctuating and difficult to concentrate²³. Self-esteem scale (SES) after creative arts therapy showed that students in smoke-free universities' self-worth and self-acceptance were improved, and anxiety and mental stress were relieved to some extent.

To sum up, during the period of COVID-19 pandemic in China, students in smoke-free universities, as a special group, are at high risk of mental illness, and their mental health status is not optimistic²⁴. It is suggested that special attention should be paid to the students in smoke-free universities, and timely and effective psychological intervention and treatment should be carried out to help them tide over difficulties²⁵. For example, starting from the conclusion of this study, we can pay attention to students in smoke-free (tobacco control) universities' self-esteem, understand the status of social support, and strive to improve their self-esteem through special online courses and activity design, give more care and support, and help them build a broader and stronger social support system²⁶.

This study also has some limitations. For example, the samples had small range and were not representative enough. In the later period, we will continue to expand the sample size and

conduct a more in-depth study of mental health of students in smoke-free universities in crisis²⁷.

Authors Declaration

This research is not funded by any organization related to tobacco production.

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